

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Yamaha Corporation of America
Petitioner

v.

Black Hills Media, LLC
Patent Owner

Patent No. 8,050,652

Issue Date: November 1, 2011

Title: METHOD AND DEVICE FOR AN INTERNET RADIO CAPABLE OF
OBTAINING PLAYLIST CONTENT FROM A CONTENT SERVER

Inter Partes Review No. IPR2013-00594

**JOINT NOTICE REGARDING TERMINATION OF RELATED ITC
INVESTIGATION REGARDING U.S. PATENT NO. 8,050,652**

As directed by the Board during the October 10, 2014 teleconference, Petitioner Yamaha Corporation of America and Patent Owner Black Hill Media, LLC jointly file this Notice regarding ITC Investigation No. 337-TA-882 (“the ITC investigation”), which involved U.S. Patent No. 8,050,652. The Notice attaches (i) the September 17, 2014 Federal Register Notice regarding the termination of the ITC investigation and (ii) the public version of the ALJ’s Final Initial Determination in the ITC investigation.

Dated: October 14, 2014

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Certificate of Service (37 C.F.R. § 42.6(e)(4))

I hereby certify that the attached “Joint Notice Regarding Termination of Related ITC Investigation Regarding U.S. Patent No. 8,050,652” was served on the below date on the Patent Owner via e-mail (by consent) to the following counsel of record for the Patent Owner:

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irreparable harm if temporary relief is not granted, that the balance of hardships favor granting temporary relief, or that the public interest favors granting temporary relief.

On August 22, 2014, FMC filed comments contending that the ALJ made numerous errors of law and fact in the ID. On August 26, 2014, Respondents and the Commission investigative attorney filed responses contending that the ALJ did not err.

Having examined the record of this investigation, including the ALJ's ID and the submissions from the parties, the Commission has determined that FMC has not proven that it is entitled to temporary relief. The Commission affirms the ALJ's findings with certain modified reasoning. A Commission Opinion will issue shortly.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

By order of the Commission.

Issued: September 11, 2014.

Jennifer D. Rohrbach,
Supervisory Attorney.

[FR Doc. 2014-22137 Filed 9-16-14; 8:45 am]

BILLING CODE 7020-02-P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337-TA-882]

Certain Digital Media Devices, Including Televisions, Blu-Ray Disc Players, Home Theater Systems, Tablets and Mobile Phones, Components Thereof and Associated Software; Notice of a Commission Determination to Review in Part A Final Initial Determination Finding no Violation of Section 337, on Review to Modify-In-Part and Vacate-In-Part the Determination; Grant of Consent Motion To Terminate the Investigation as to Certain Respondents; Termination of the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to review in part the final initial determination ("ID") of the presiding administrative law judge ("ALJ") finding no violation of section 337 by the following remaining respondents in the above-captioned investigation: Samsung

Electronics Co., Ltd. of Gyeonggi-do, Republic of Korea; Samsung Electronics America, Inc. of Ridgefield Park, New Jersey; Samsung Telecommunications America, LLC of Richardson, Texas (collectively, "Samsung"); LG Electronics, Inc. of Seoul, Republic of Korea; LG Electronics U.S.A., Inc. of Englewood Cliffs, New Jersey; LG Electronics MobileComm U.S.A., Inc. of San Diego, California (collectively, "LG"); Toshiba Corporation of Tokyo, Japan; and Toshiba American Information Systems, Inc. of Irvine, California (collectively, "Toshiba"). On review, the Commission has determined to modify-in-part and vacate-in-part the final ID. The Commission has also determined to grant the joint motion to terminate the above-captioned investigation as to respondents Panasonic Corporation of Osaka, Japan; Panasonic Corporation of North America of Secaucus, New Jersey (collectively, "Panasonic") based upon a settlement agreement. The Commission has terminated the investigation with a finding of no violation of section 337.

FOR FURTHER INFORMATION CONTACT:

Clint Gerdine, *Esq.*, Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone (202) 708-2310. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at <http://www.usitc.gov>. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on June 18, 2013 based on a complaint filed on May 13, 2013, by Black Hills Media, LLC ("BHM") of Wilmington, Delaware. 78 FR 36573-74. The complaint alleged violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain digital media devices, including televisions, blu-ray disc players, home theater systems, tablets and mobile

phones, components thereof and associated software by reason of infringement of certain claims of the following U.S. Patent Nos.: 8,028,323 ("the '323 patent"); 8,214,873 ("the '873 patent"); 8,230,099 ("the '099 patent"); 8,045,952 ("the '952 patent"); 8,050,652 ("the '652 patent"); and 6,618,593 ("the '593 patent"). The complaint further alleged that an industry in the United States exists as required by subsection (a)(2) of section 337. The complaint named the following respondents: Samsung; LG; Toshiba; Panasonic; Sharp Corporation of Osaka, Japan; and Sharp Electronics Corporation of Mahwah, New Jersey (collectively, "Sharp").

On September 10, 2013, the Commission issued notice of its determination not to review the ALJ's ID (Order No. 17) granting Google Inc.'s motion to intervene as a party to the investigation. On November 20, 2013, the Commission issued notice of its determination not to review the ALJ's ID (Order No. 23) terminating the investigation as to Sharp based on a settlement agreement. On January 7, February 11, and April 10, 2014, the Commission issued notice of its determinations not to review the ALJ's IDs (Order Nos. 32, 35, and 49-50) terminating the investigation as to the following: The '323 and '099 patents; claims 2, 6-8, 15-19, 22, 25-27, 31, 35-36, and 44 of the '873 patent; claims 3-4, 6-7, 10, 42-45, 47-50, 52, and 55 of the '652 patent; claims 1, 4, 10, 13-17, 19, and 20-21 of the '593 patent; and claims 1-4 and 10-12 of the '952 patent. On March 14, 2014, the Commission issued notice of its determination not to review the ALJ's ID (Order No. 47) terminating the investigation as to claims 1, 11, and 13 of the '652 patent and claim 27 of the '873 patent with respect to Panasonic. On July 3, 2014, BHM and Panasonic filed an unopposed joint motion to terminate the investigation as to Panasonic based on a settlement agreement. Therefore, the remaining respondents are LG, Samsung, and Toshiba.

On July 7, 2014, the ALJ issued the final ID finding no violation of section 337 by the remaining respondents. The ALJ found that: (1) There was no importation of "articles that infringe" under section 337(a)(1)(B)(i) as to any of respondents' accused products with respect to any asserted claim of the patents at issue; (2) none of the accused products of the remaining respondents infringe any asserted claim of the patents at issue; (3) the domestic industry requirement (both economic and technical prongs) had not been satisfied with respect to any asserted

patent; and (4) the asserted claims of the '873 patent are invalid under 35 U.S.C. 112, ¶ 1 and 35 U.S.C. 102 and/or 103. On July 16, 2014, the ALJ issued his recommendation on remedy and bonding ("RD") in the event the Commission found a violation of section 337. On July 21, 2014, BHM filed a petition for review of the final ID only with respect to the '873 and '652 patents and the remaining respondents (including intervenor) filed a joint petition for review with respect to all asserted patents. On July 29, 2014, BHM, the remaining respondents, and the Commission investigative attorney each filed a response to the opposing petition for review. On July 30, 2014, the remaining respondents (including intervenor), filed an unopposed motion for leave to file a corrected joint response to BHM's petition for review along with the corrected joint response. The Commission has determined to grant respondents' motion.

Upon considering the record in this investigation, including the final ID and the parties' submissions, the Commission has determined to review-in-part the final ID under 19 CFR 210.44. On such review of the final ID, the Commission has modified a specific portion of the final ID and has vacated all portions of the final ID that reference *Suprema, Inc. v. ITC*, 742 F.3d 1350 (Fed. Cir. 2013), *reh'g en banc granted and vacated*, 2014 WL 3036241 (May 13, 2014). Specifically, the Commission has modified the following portion of the final ID: Section VIII.A.4, on page 460, before the last period "," of the citation to *Certain Male Prophylactic Devices*, the citation language "; *Certain Integrated Circuit Chips and Products Containing the Same*, Inv. No. 337-TA-859, Comm'n Op. at 30-51 (August 22, 2014)" has been inserted. The Commission has also vacated the following portions of the final ID: (1) Section III.A, the last paragraph on pages 9-10; (2) Section III.A.1, the citation language "*Suprema*, slip op. at 18 (" and the closing parenthesis ")" in this citation on page 10; (3) the entirety of Section III.A.2.a on page 11; and (4) the entirety of Section III.C.3 on pages 20-23. The Commission has determined not to review the remainder of the final ID under 19 CFR 210.42(h)(2).

In addition, the Commission has determined that BHM did not petition for review of the ALJ's finding in the final ID of invalidity of the asserted claims of the '873 patent under 35 U.S.C. 102 and/or 103, and therefore has abandoned these issues under 19 CFR 210.43(b)(2). See *Allied Corp. v. ITC*, 850 F.2d 1573 (Fed. Cir. 1988). The Commission has also determined that

BHM has petitioned for review of certain issues based on arguments that BHM did not set forth in detail in its pre- and/or post-hearing briefing before the ALJ, and therefore the Commission has determined that these issues are waived and deemed abandoned. See *Ajinomoto Co., Inc. v. ITC*, 597 F.3d 1267 (Fed. Cir. 2010); Order No. 2 (ALJ's Ground Rules, June 19, 2013). These abandoned issues are the following: (1) Infringement of the '652 patent by accused Samsung and LG products with the Slacker application preinstalled; and (2) satisfaction of the economic prong of the domestic industry requirement with respect to all asserted patents. Specifically, these issues are found to be waived and therefore deemed abandoned because: (1) BHM did not present evidence of infringement with respect to Samsung and LG product models with the Slacker application preinstalled before the ALJ; and (2) BHM did not argue allocations of [] investments under 19 U.S.C. 1337(a)(3)(A), (B) with respect to specific domestic industry products (that practice the asserted patents) identified in its "Identification of Models of Domestic Industry Products" in its pre-hearing brief.

The Commission has also determined to grant the joint motion to terminate the investigation as to Panasonic. Section 337(c) provides, in relevant part, that the Commission may terminate an investigation "on the basis of an agreement between the private parties to the investigation." When the investigation is before the Commission, as is the case here, the Commission may act on a motion to terminate on the basis of settlement. See *Certain Insect Traps*, Inv. No. 337-TA-498, Notice of Commission Determination to Terminate the Investigation in its Entirety on the Basis of a Settlement Agreement, 69 Fed. Reg. 63176 (Oct. 29, 2004). Section 210.21(b) of the Commission's Rules of Practice and Procedure (19 CFR 210.21(b)), which implements section 337(c), requires that a motion for termination based upon a settlement contain a copy of that settlement agreement, as well as a statement that there are no other agreements, written or oral, express or implied, between the parties concerning the subject matter of the investigation. The joint motion complies with these requirements.

The Commission also considers the public interest when terminating an investigation based upon a settlement agreement. 19 CFR 210.50(b)(2). We find no evidence that termination of the investigation as to Panasonic will prejudice the public interest or that

settlement will adversely impact the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers. Moreover, the public interest favors settlement to avoid needless litigation and to conserve public and private resources. Accordingly, the Commission hereby grants the consent motion to terminate this investigation as to Panasonic on the basis of a settlement agreement.

Finally, the Commission has terminated the investigation with a finding of no violation of section 337.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, and in Part 210 of the Commission's Rules of Practice and Procedure, 19 CFR part 210.

By order of the Commission.

Issued: September 11, 2014.

Jennifer D. Rohrbach,

Supervisory Attorney.

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DEPARTMENT OF JUSTICE

[OMB Number 1140-0080]

Agency Information Collection Activities; Proposed eCollection eComments Requested; Notification of Change of Mailing or Premise Address

AGENCY: Bureau of Alcohol, Tobacco, Firearms and Explosives, Department of Justice.

ACTION: 60-Day notice.

SUMMARY: The Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), will submit the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for 60 days until November 17, 2014.

FOR FURTHER INFORMATION CONTACT: If you have additional comments especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact Christopher Reeves, *Christopher.R.Reeves@usdoj.gov*, Chief, Federal Explosives Licensing Center,

PUBLIC VERSION

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C. 20436**

In the Matter of

**CERTAIN DIGITAL MEDIA DEVICES,
INCLUDING TELEVISIONS, BLU-RAY
DISC PLAYERS, HOME THEATER
SYSTEMS, TABLETS AND MOBILE
PHONES, COMPONENTS THEREOF AND
ASSOCIATED SOFTWARE**

Investigation No. 337-TA-882

INITIAL DETERMINATION

Administrative Law Judge David P. Shaw

Pursuant to the notice of investigation, 78 Fed. Reg. 36573 (June 18, 2013), this is the initial determination in *Certain Digital Media Devices, Including Televisions, Blu-Ray Disc Players, Home Theater Systems, Tablets and Mobile Phones, Components Thereof and Associated Software*, United States International Trade Commission Investigation No. 337-TA-882.

It is held that a violation of section 337 of the Tariff Act, as amended, has not occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain digital media devices, including televisions, blu-ray disc players, home theater systems, tablets and mobile phones, components thereof and associated software, with respect to asserted claims 1, 5, 23, 30, 34, 37, and 45 of U.S. Patent No. 8,214,873; asserted claims 9 and 14 of U.S. Patent No. 8,045,952; asserted claims 1, 11, and 13 of U.S. Patent No. 8,050,652; or asserted claims 7 and 18 of U.S. Patent No. 6,618,593.

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The following abbreviations may be used in this Initial Determination:

ACL	Access Control List
ALJ	Administrative Law Judge
API	Application Programming Interface
CDX	Complainant's Demonstrative Exhibit
CSP	Content Service Provider
CPX	Complainant's Physical Exhibit
CX	Complainant's Exhibit
Dep.	Deposition
DLNA	Digital Living Network Alliance
DMC	Digital Media Controller
DMR	Digital Media Rendered
DMS	Digital Media Server
DWS	Direct Witness Statement
EDIS	Electronic Document Imaging System
GPM	Google Play Music
HDMI	High-Definition Multimedia Interface
JDX	Joint Demonstrative Exhibit
JPX	Joint Physical Exhibit
JX	Joint Exhibit
LAN	Local Area Network
MPEP	Manual of Patent Examining Procedure
OS	Operating System

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PTO	U.S. Patent and Trademark Office
RDX	Respondents' Demonstrative Exhibit
RPX	Respondents' Physical Exhibit
RWS	Rebuttal Witness Statement
RX	Respondents' Exhibit
SDX	Staff's Demonstrative Exhibit
SMU	[]
SPX	Staff's Physical Exhibit
SX	Staff's Exhibit
Tr.	Transcript
URI	Uniform Resource Indicator
URL	Uniform Resource Locator
WS	Witness Statement

PUBLIC VERSION

I. Background

A. Institution of the Investigation

By publication of a notice in the *Federal Register* on June 18, 2013, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, the Commission instituted this investigation to determine:

[W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain digital media devices, including televisions, blu-ray disc players, home theater systems, tablets and mobile phones, components thereof and associated software by reason of infringement of one or more of claims 1-5, 10, 11, 13, 14, and 16-18 of the '323 patent [U.S. Patent No. 8,028,323]; claims 1, 2, 5-8, 15-19, 22, 23, 25-27, 30, 31, 34-37, and 44-46 of the 873 patent [U.S. Patent No. 8,214,873]; claims 1 and 10-12 of the '099 patent [U.S. Patent No. 8,230,099]; claims 1, 2-4, 9-12, and 14 of the '952 patent [U.S. Patent No. 8,045,952]; claims 1, 3, 4, 6, 7, 10, 11, 13, 42-45, 47-50, 52 and 55 of the '652 patent [U.S. Patent No. 8,050,652]; and claims 1, 4, 7, 10 and 13-21 of the '593 patent [U.S. Patent No. 6,618,593]; and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

78 Fed. Reg. 36573 (June 18, 2013).

The Commission named as complainant Black Hills Media, LLC of Wilmington, Delaware ("BHM" or "Black Hills").

The Commission named as respondents Samsung Electronics Co. Ltd. ("SEC") of Seoul, Republic of Korea; Samsung Electronics America, Inc. ("SEA") of Ridgefield Park, New Jersey; Samsung Telecommunications America, LLC ("STA") of Richardson, Texas (together, "Samsung"); LG Electronics, Inc. of Seoul, Republic of Korea; LG Electronics U.S.A., Inc. of Englewood Cliffs, New Jersey, LG Electronics MobileComm U.S.A., Inc. of San Diego, California (together, "LG"); Panasonic Corporation of Osaka, Japan; Panasonic Corporation of North America of Secaucus, New Jersey (together, "Panasonic"); Toshiba Corporation of Tokyo, Japan; Toshiba America Information Systems, Inc. of Irvine, California (together, "Toshiba");

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Sharp Corporation of Osaka, Japan; and Sharp Electronics Corporation of Mahwah, New Jersey (together, “Sharp”) (collectively, “Respondents”). *Id.*

The Office of Unfair Import Investigations (“Staff” or “OUII”) was also named as a party to the investigation. *Id.*

B. Procedural History

The target date for completion of this investigation was set at 16 months, *i.e.*, October 20, 2014.¹ Order No. 8 (July 19, 2013). The target date was tolled for 16 days to November 5, 2014 due to the shutdown of the federal government in October 2013. *See* Order No. 53 (May 19, 2014). The deadline for this initial determination is therefore July 7, 2014.² *Id.*

A prehearing conference was held on August 6, 2013. *See* Prehearing Tr. 1-95 (Aug. 6, 2013).

Google Inc. (“Google” or “Intervenor”) moved to intervene as a party to the investigation, and the administrative law judge granted the motion in an initial determination. Order No. 17 (Aug. 19, 2013), *aff’d*, Notice of Commission Determination Not to Review an Initial Determination Granting Intervenor Status to Google, Inc. (Sept. 10, 2013).³

Black Hills and Sharp moved to terminate the investigation as to Sharp based on a settlement agreement, and the administrative law judge granted the motion in an initial determination. Order No. 23 (Oct. 21, 2013), *aff’d*, Notice of Commission Determination Not to

¹ October 18, 2014 falls on a Saturday. *See* 19 C.F.R. § 201.14(a).

² July 5, 2014 falls on a Saturday. *See* 19 C.F.R. § 201.14(a).

³ Google and Respondents are aligned in their positions regarding many of the issues discussed in this initial determination. Going forward, the collective term “Respondents” often encompasses Google as well.

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Review an Initial Determination Terminating the Investigation With Respect to Sharp Corporation and Sharp Electronics Corporation (Nov. 20, 2013).

Black Hills moved to terminate the investigation in part as to the following: claims 1, 2-5, 10-11, 13-14, and 16-18 of the '323 patent (all asserted claims); claims 6, 7, 15, 18, 35, 36, and 44 of the '873 patent; claim 43 of the '652 patent; and claims 1 and 10 of the '099 patent. The administrative law judge granted the motion in an initial determination. Order No. 32 (Dec. 12, 2013), *aff'd*, Notice of Commission Determination Not to Review an Initial Determination Terminating the Investigation With Respect to Certain Claims (Jan. 7, 2014).

Black Hills moved to terminate the investigation in part as to the following: claims 1, 4, 10, 13-16, and 21 of the '593 patent; claims 10-12 of the '952 patent; claims 3, 4, 6, 7, 10, 42, 44, 45, 47-50, 52, and 55 of the '652 patent; claims 2, 25, 26, 31, and 46 of the '873 patent; and claims 11 and 12 of the '099 patent (all asserted claims). The administrative law judge granted the motion in an initial determination. Order No. 35 (Jan. 13, 2014), *aff'd*, Notice of Commission Determination Not to Review an Initial Determination Terminating the Investigation With Respect to Certain Claims (Feb. 11, 2014).

Black Hills moved to terminate the investigation in part with respect to Panasonic as to claims 1, 11, and 13 of the '652 patent and claim 27 of the '873 patent. The administrative law judge granted the motion in an initial determination. Order No. 47 (Feb. 27, 2014), *aff'd*, Notice of a Commission Determination Not to Review an Initial Determination Terminating the Investigation As to Certain Claims Asserted Against Respondents Panasonic Corporation and Panasonic Corporation of North America (Mar. 14, 2014).

A prehearing conference was held on February 18, 2014, with the evidentiary hearing in this investigation commencing immediately thereafter. The hearing concluded on February 25,

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2014. *See* Order No. 24 (Oct. 23, 2013); Prehearing Tr. 1-63 (Feb. 18, 2014); Hearing Tr. 1-1819. Black Hills was requested to file a post-hearing brief not to exceed 600 pages, whereas Respondents and intervenor Google were allowed a 350-page combined brief, with each separate respondent given an additional 120 pages for individual issues. *See* Prehearing Tr. 13-14 (Feb. 18, 2014).⁴

Black Hills moved to terminate the investigation in part as to the following: claims 17, 19, and 20 of the '593 patent; claims 1, 2, 3, and 4 of the '952 patent; and claims 8, 16, 17, 19, 22, and 27 of the '873 patent. The administrative law judge granted the motion in an initial determination. Order No. 49 (Mar. 12, 2014); Order No. 50 (Mar 12, 2014); *aff'd*, Notice of a Commission Determination Not to Review an Initial Determination Terminating the Investigation As to Certain Claims (Apr. 10, 2014).

On June 2, 2014, the Supreme Court of the United States issued slip opinions in *Limelight Networks, Inc. v. Akamai Technologies, Inc.*, No. 12-786, and *Nautilus, Inc. v. Biosig Instruments, Inc.*, No. 13-369. The parties were granted leave to file supplemental briefs addressing the effect of these two opinions on issues raised in the investigation. Order No. 54 (June 5, 2014).

On July 3, 2014, Black Hills and Panasonic moved to terminate the investigation as to Panasonic based on a settlement agreement. Motion Docket No. 882-91. Briefing for the motion is not yet complete. Based on the motion, and on communications with BHM and Panasonic, the administrative law judge understands that neither BHM nor Panasonic seeks adjudication in this initial determination of whether or not Panasonic has violated section 337.

⁴ Reply post-hearing briefs were allotted half the number of pages allowed for the initial post-hearing briefs.

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C. The Private Parties

Black Hills Media, LLC is a privately-held Delaware limited liability company with a principal place of business in Wilmington, Delaware. *See* Compl. at 4, ¶ 7. BHM is a wholly owned subsidiary of Concert Technology Corporation (“Concert”), a privately held company headquartered in Research Triangle Park, North Carolina. *Id.* Concert conducts research, development, acquisition and licensing of technologies and intellectual property. *Id.* Concert’s patent portfolio includes patents derived from its own research activities as well as patents acquired from external sources. *Id.*

Samsung Electronics Co., Ltd. is a Korean corporation with its global headquarters in Suwon-si, Gyeonggi-do, Republic of Korea. *See* Samsung Resp. to Compl. at 3, ¶ 9. Samsung Electronics America, Inc. is a wholly-owned subsidiary of Samsung Electronics Co., Ltd., and is a New York corporation with a principal place of business in Ridgefield Park, New Jersey. *See id.* ¶ 10. Samsung Telecommunications America, LLC is a wholly-owned subsidiary of Samsung Electronics America, Inc., and is a Delaware limited liability company with a principal place of business in Richardson, Texas. *See id.* at 3-4, ¶ 11.

LG Electronics, Inc. is a foreign corporation located in Seoul, South Korea. *See* LG Resp. to Compl. at 4, ¶ 14. LG Electronics U.S.A., Inc. is a wholly-owned subsidiary of LG Electronics, Inc., is organized under the laws of the State of Delaware, and has a principal place of business in Englewood Cliffs, New Jersey. *See id.* at 5, ¶ 15. LG Electronics MobileComm U.S.A., Inc. is a subsidiary of LG Electronics, Inc., is organized under the laws of the State of California, and has a principal place of business in San Diego, California. *See id.* ¶ 16.

Panasonic Corporation is a corporation existing under the laws of Japan with a principal place of business in Osaka, Japan. *See* Panasonic Resp. to Compl. at 6, ¶ 19. Panasonic

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Corporation of North America is a Delaware corporation with a principal place of business in Secaucus, New Jersey. *See id.* ¶ 20.

Toshiba Corporation is a corporation existing under the laws of Japan with a principal place of business in Tokyo, Japan. *See* Toshiba Resp. to Compl. at 6, ¶ 23. Toshiba America Information Systems, Inc. is a California corporation with a principal place of business in Irvine, California. *See id.* ¶ 24.

D. Ownership of the Asserted Patents

The asserted patents have each been assigned to Black Hills, and the assignments have been recorded with the United States Patent and Trademark Office. *See* CX-0884; CX-0896; CX-0899.

The patent application for the '873 patent was initially assigned by named inventor Martin Weel to MusicStream, LLC. CX-0879 ('873 assignment to MusicStream at BHM-ITC-000359-362). MusicStream was merged into Elario, Inc., another company with which Mr. Weel was involved. CX-0880 ('873 assignment to Elario at BHM-ITC-000364-372). In 2007, Elario, Inc. assigned the patent application to Concert. CX-0881 ('873 assignment to Concert at BHM-ITC-000374-377). Concert assigned the patent application to one of its subsidiaries, ConPact, Inc. CX-0882 ('873 assignment to ConPact at BHM-ITC-000379-382). ConPact later assigned the patent application to another subsidiary of Concert, Dryden Enterprises, LLC. CX-0883 ('873 assignment to Dryden at BHM-ITC-000384-390). Dryden Enterprises then assigned the patent and patent application to BHM. CX-0884 ('873 assignment to Black Hills at BHM-ITC-000392-398).

The patent applications for the '652 and '952 patents were assigned by the named inventors to their company, AudioRamp. CX-0885 ('952 assignment to AudioRamp at

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BHM-ITC-000441-445); CX-0891 ('652 assignment to AudioRamp at BHM-ITC-000477-482). AudioRamp assigned the patent applications to the law firm Knobbe Martens. CX-0886 ('952 assignment to Knobbe Martens BHM-ITC-000446-450); CX-0892 ('652 assignment to Knobbe Martens at BHM-ITC-000483-488). In 2006, Knobbe Martens assigned the patent applications to Concert. CX-0887 ('952 assignment to Concert at BHM-ITC-000451-454); CX-0893 ('652 assignment to Concert at BHM-ITC-000489-492). Concert assigned the patent applications to one of its subsidiaries, ConPact, Inc. CX-0888 ('952 assignment to ConPact at BHM-ITC-000455-461); CX-0894 ('652 assignment to ConPact at BHM-ITC-000493-500). In 2010, ConPact assigned the applications to another Concert subsidiary, Horsham Enterprises, LLC. CX-0889 ('952 assignment to Horsham at BHM-ITC-000462-469); CX-0895 ('652 assignment to Horsham at BHM-ITC-000501-508). Horsham later assigned the patent applications to Black Hills. CX-0890 ('952 assignment to Black Hills at BHM-ITC-00470-476); CX-0896 ('652 assignment to Black Hills at BHM-ITC-00509-516).

The application for the '593 patent was assigned by the named inventors to their company RovingRadar, Inc. CX-0897 ('593 assignment to RovingRadar at BHM-ITC-00517-527). In 2007, RovingRadar assigned the patent application to a subsidiary of Concert called Confine, Inc. CX-0898 ('593 assignment to Confine at BHM-ITC-000528-533). Confine then assigned the patents to Black Hills. CX-0899 ('593 assignment to Black Hills at BHM-ITC-00534-543).

II. Jurisdiction

No party has contested the Commission's personal jurisdiction over it. *See, e.g.*, Compl. Br. at 16-17; Resps. Br at 14; Staff Br. at 23. Indeed, all parties appeared at the evidentiary

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hearing, and presented evidence. It is found that the Commission has personal jurisdiction over all parties.

No party has contested the Commission's *in rem* jurisdiction over the accused products. *See, e.g.*, Compl. Br. at 16-17; Resps. Br at 14; Staff Br. at 23. Black Hills has based its importation arguments on completed acts of importation. Indeed, three sets of respondents have stipulated that they have imported accused products into the United States. *See* Joint Stipulation by Complainant and Samsung Respondents (EDIS Doc. No. 521016) (Oct. 31, 2013); Joint Stipulation Regarding Importation and Inventory (Panasonic) (EDIS Doc Nos. 521019 and 521020) (Oct. 31, 2013); Joint Stipulation Among Complaint Black Hills Media LLC and Respondents Toshiba Corporation and Toshiba America Information Systems, Inc. Regarding Importation and Inventory (EDIS Doc. No. 521097) (Oct. 28, 2013). Even though Respondents argue that have not imported any infringing article in violation of section 337, *see* Resps. Br. at 14, it is nevertheless found that the Commission has *in rem* jurisdiction over all products accused under the asserted patents.

No party has contested the Commission's jurisdiction over the subject matter of this investigation. *See, e.g.*, Compl. Br. at 16-17; Resps. Br at 14; Staff Br. at 23. Indeed, as indicated in the Commission's notice of investigation, discussed above, this investigation involves the alleged importation of products that infringe United States patents in a manner that violates section 337 of the Tariff Act, as amended. Accordingly, it is found that the Commission has subject matter jurisdiction over this investigation.

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III. Importation

A. General Principles of Law

This investigation was instituted to determine whether a violation of section 337 has occurred in “the importation into the United States, the sale for importation, or the sale within the United States after importation” of certain products. *See* 78 Fed. Reg. 36573 (June 18, 2013); 19 U.S.C. § 1337(a)(1)(B) (making unlawful, in certain circumstances, the “importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that . . . infringe a valid and enforceable United States patent . . .”). It has long been recognized that an importation of even one accused product can satisfy the importation requirement of section 337. *See Certain Trolley Wheel Assemblies*, Inv. No. 337-TA-161, Comm’n Op. at 7-8, USITC Pub. No. 1605 (Nov. 1984) (deeming the importation requirement satisfied by the importation of a single product of no commercial value).

When infringement at the time of importation is in question, “the ALJ’s importation analysis must include an evaluation of whether the type of infringement alleged will support a finding that there has been an importation of an article that infringes in violation of section 337.” *Certain Electronic Devices with Image Processing Systems, Components Thereof, and Associated Software (“Electronic Devices”)*, Inv. No. 337-TA-724, Comm’n Op. at 13 n.8 (Dec. 21, 2011).

The statutory requirement of “articles that infringe” references the status of the articles at the time of importation. “The focus is on the infringing nature of the articles at the time of importation, not on the intent of the parties with respect to the imported goods.” *Suprema, Inc. v. Int’l Trade Comm’n*, No. 2012-1170, slip. op. at 16 (Fed. Cir. Dec. 13, 2013). “Thus,

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infringement, direct or indirect, must be based on the articles as imported to satisfy the requirements of section 337.” *Id.* at 24.

1. Direct Infringement⁵

An article cannot directly infringe a method claim at the time of importation. *Electronic Devices*, Comm’n Op., at 17. Method claims cannot be infringed until the method has been performed in the United States. *Suprema*, slip op. at 18 (citing *Electronic Devices*, Comm’n Op. at 12-13). The same is true of system and device claims where specific limitations are not met by the accused devices that are imported. *Certain Products Containing Interactive Program Guide and Parental Control Technology* (“*Interactive Program Guide*”), Inv. No. 337-TA-845, Initial Determination at 39 (July 2, 2013), *aff’d in relevant part*, Comm’n Op. at 12 (Dec. 11, 2013). Thus, for method, system, or device claims requiring post-importation activities or components, no direct infringement can be found at the time of importation.

2. Indirect Infringement

Indirect infringement can be based on induced or contributory infringement. To prove indirect infringement, a complainant must prove specific instances of direct infringement by third parties. *Certain Electronic Digital Media Devices and Components Thereof* (“*Electronic Digital Media Devices*”), Inv. No. 337-TA-796, Comm’n Op. at 32, 36 (Sept. 6, 2013); *Mirror Worlds, LLC v. Apple Inc.*, 692 F.3d 1351, 1360-61 (Fed. Cir. 2012).

If direct evidence of specific instances of direct infringement is not shown, circumstantial evidence may be used only when the evidence shows the accused products necessarily infringe, that is, the evidence shows that the accused products were intended to be used only to practice

⁵ Additional principles of law relating to infringement are set forth below in the section analyzing the alleged infringement of the ’873 patent.

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the infringing method and that method was explicitly taught, for example, by product manuals. *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 36. Nevertheless, "excerpts from user manuals as evidence of underlying direct infringement by third parties of products that can be used in a noninfringing manner are by themselves insufficient to show the predicate acts necessary for inducement of infringement." *Mirror Worlds*, 692 F.3d at 1360.

In *Global-Tech Appliances, Inc. v. SEB S.A.*, the Supreme Court held indirect infringement, whether contributory or induced, requires knowledge of the patent and the direct infringement of that patent. 131 S. Ct. 2060, 2068 (2011). This requires "actual knowledge of the existence of the patent that is infringed." *Id.* There must be sufficient evidence for the fact-finder to infer the accused infringer knew of the asserted patent during the time the infringing act took place. *See SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1380 (Fed. Cir. 2013). Complaints filed with the Commission and in a related district court action alone are insufficient to show the required knowledge. *Certain Video Game Systems and Wireless Controllers and Components Thereof*, Inv. No. 337-TA-770, Comm'n Op. at 32 (Nov. 6, 2012).

a. Induced Infringement

With respect to induced infringement, the Federal Circuit recently held that the Commission "may not invoke inducement to ban importation of articles which may or may not later give rise to direct infringement of [a] patented method based solely on the alleged intent of the importer." *Suprema*, slip op. at 25 (emphasis omitted). Therefore, "an exclusion order based on a violation of 19 U.S.C. § 1337(a)(1)(B)(i) may not be predicated on a theory of induced infringement under 35 U.S.C. § 271(b) where direct infringement does not occur until after importation of the articles the exclusion order would bar." *Id.* at 4.

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b. Contributory Infringement

To prevail on a claim of contributory infringement in a section 337 case, the complainant must show: (1) there is an act of direct infringement in violation of section 337; (2) the accused device has no substantial noninfringing uses; (3) the accused infringer imported, sold for importation, or sold after importation within the United States, the accused components that contributed to another's direct infringement; and (4) the alleged infringer knew "that the combination for which his component was especially designed was both patented and infringing." *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 41; *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1353 (Fed. Cir. 2010). The complainant bears the burden of establishing a *prima facie* case that the accused products are not suitable for substantial noninfringing use. *Certain Endoscopic Probes for Use in Argon Plasma Coagulation Systems*, Inv. No. 337-TA-569, USITC Pub. No. 4111, Initial Determination at 71 (Jan. 16, 2008).

B. Importation of the Accused Products

It is undisputed that the accused products in this investigation have been imported into the United States. *See, e.g.*, JX-0109C (Joint Stipulation Among Complainant Black Hills Media LLC and Respondents Toshiba Corporation and Toshiba America Information Systems, Inc. Regarding Importation and Inventory); JX-0108C (Joint Stipulation by Complainant and Samsung Respondents); JX-0111C (Joint Stipulation Regarding Importation and Inventory – Panasonic); LG's Response to Black Hills' Complaint at Confidential Exhibit 1 (EDIS Doc. No. 513363) (June 12, 2013); Complaint at Exhibits 24, 26, 28 (Doc. No. 509006) (May 13, 2013); CX-1117C (LG Respondents' Second Supplemental Responses to Complainant's First Set of

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Interrogatories (Nos. 1, 2, 5, 9, 10, 21)) at 2-7 (identifying accused devices imported into the United States in response to BHM’s Interrogatory No. 1).

The parties dispute, however, whether or not these acts of importation can serve as the basis for a finding of violation of section 337. Respondents argue:

BHM relies on incorrect law and fails to adduce argument or proof sufficient to meet its burden with respect to violation at the time of importation. Without reaching the merits of whether the claim limitations are met as BHM alleges, it is evident that the patent claims themselves, the allegedly infringing functionalities and devices, and BHM’s allegations fail to support infringement at the time of importation.

Resps. Br. at 18-19 (footnote omitted).

Respondents provide the following chart that purports to summarize BHM’s infringement allegations and the reasons why the allegations cannot support a finding of violation of section 337.

BHM Allegation	Reason for No Violation
<p><i>Direct Infringement of Method Claims:</i> Direct infringement of method claims 9 and 14 of the '952 patent by all Respondents based on use of "DLNA," Google Play Music, iHeartRadio, Slacker, Spotify, and/or Pandora on accused devices.</p> <p><i>Direct Infringement of System Claims:</i> Direct infringement of system claims 7 and 18 of the '593 patent by Samsung and LG mobile devices with Google Locations+.</p>	<p>There is no violation by virtue of direct infringement at the time of importation of the asserted method and system claims where the method is allegedly performed or the system is allegedly complete in the United States only after importation under <i>Electronic Devices</i>, <i>Interactive Program Guides</i> and <i>Suprema</i>.</p>

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BHM Allegation	Reason for No Violation
<p><i>Direct Infringement of Device Claims:</i></p> <p>Direct infringement of device claims 1, 11, and 13 of the '652 patent by Samsung, LG, and Toshiba devices based on use of one or more of vTuner, a web browser for internet radio broadcasts, Slacker, or iHeartRadio, and "Playlist Functionalities" such as "DLNA," Spotify, Pandora, Google Play Music, or iHeartRadio in various combinations.</p> <p>Direct infringement of: (a) device claims 23, 30, 34, 37, and 45 of the '873 patent by Samsung and LG devices based on use of "DLNA" and DIAL-enabled YouTube; (b) claims 30, 34, 37, and 45 by Samsung and LG devices based on use of Screen Mirroring; (c) claims 23, 30, 37, and 45 of the '873 patent by Toshiba based on use of "DLNA"; and (d) claims 23, 30, and 45 by Toshiba based on use of DIAL-enabled YouTube.</p>	<p>There is no violation by virtue of direct infringement at the time of importation of the asserted device claims where the limitations of the claim are not met, if at all, until after importation where the accused applications are not even installed prior to importation, where necessary user interface code and/or authentication codes are not on the device at importation, and/or where claim limitations are allegedly met only by non-imported components and activities under <i>Electronic Devices, Interactive Program Guide</i> and <i>Suprema</i>.</p>
<p><i>Induced Infringement of Method Claims:</i></p> <p>Induced infringement of method claims 9 and 14 of the '952 patent by Samsung, LG, and Toshiba devices based on use of "DLNA," Google Play Music, iHeartRadio, Slacker, Spotify, and/or Pandora on accused devices.</p> <p>Induced infringement of (a) method claim 1 of the '873 patent by Samsung, LG, and Toshiba devices based on use of "DLNA" and DIAL-enabled YouTube; and (b) method claim 1 by Panasonic devices based on use of "DLNA."</p> <p><i>Induced Infringement of System Claims:</i></p> <p>Induced infringement of system claims 7 and 18 of the '593 patent by Samsung and LG mobile devices with Google Locations+.</p> <p><i>Induced Infringement of Device Claims:</i></p> <p>Induced infringement of device claims 1, 11, and 13 of the '652 patent by Samsung, LG, and Toshiba devices based on use of one or more of vTuner, a web browser for internet radio broadcasts, Slacker, or iHeartRadio and "Playlist Functionalities" such as "DLNA," Spotify, Pandora, Google Play Music, or iHeartRadio in various combinations.</p>	<p>There is no violation by virtue of induced infringement at the time of importation of the asserted method, system, and device claims where the alleged direct infringement does not occur prior to importation and BHM has not even attempted to show a direct act of infringement or that infringement necessarily occurs and has not presented any evidence of pre-complaint knowledge and intent under <i>Electronic Devices, Suprema, Electronic Digital Media Devices, and Video Game Systems</i>. This is true as to all applications that are not pre-installed and those that may be pre-installed but nevertheless require post-importation activity and components to allegedly infringe.</p>

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BHM Allegation	Reason for No Violation
<p><i>Contributory Infringement of Method Claims</i></p> <p>Contributory infringement of method claims 9 and 14 of the '952 patent by all Respondents based on use of "DLNA," Google Play Music, iHeartRadio, Slacker, Spotify, and/or Pandora on accused devices.</p> <p>Contributory infringement of (a) method claim 1 of the '873 patent by Samsung, LG, and Toshiba devices based on use of "DLNA" and DIAL-enabled YouTube, and (b) method claim 1 by Panasonic devices based on use of "DLNA."</p> <p><i>Contributory Infringement of Device Claims:</i></p> <p>Contributory infringement of device claims 1, 11, and 13 of the '652 patent by Samsung, LG, and Toshiba devices based on use of one or more of vTuner, a web browser for internet radio broadcasts, Slacker, or iHeartRadio and "Playlist Functionalities" such as "DLNA," Spotify, Pandora, Google Play Music, or iHeartRadio in various combinations.</p> <p>Contributory infringement of device claims 23, 30, 34, 37, and 45 of the '873 patent by Samsung and LG devices based on use of "DLNA" and DIAL-enabled YouTube, and claims 23, 30, 37, and 45 by Toshiba devices based on use of "DLNA," and claims 23, 30, and 45 by Toshiba based on the use of DIAL-enabled YouTube.</p> <p><i>Contributory Infringement of System Claims:</i></p> <p>Contributory infringement of system claims 7 and 18 of the '593 patent by Samsung and LG mobile devices with Google+ Locations+.</p>	<p>There is no violation by virtue of contributory infringement at the time of importation of the asserted method, system, and device claims where BHM has not even attempted to show a direct act of infringement or that infringement necessarily occurs and has not presented any evidence of pre-complaint knowledge and intent under <i>Electronic Devices, Suprema, Electronic Digital Media Devices, Video Game Systems</i>. This is true as to all applications that are not pre-installed and those that may be pre-installed but nevertheless require post-importation activity and components to allegedly infringe. As to these claims, BHM, has also failed to prove that a material component of the invention has no substantial noninfringing use.</p>

Resps. Br. at 19-21 (footnotes omitted).

C. Direct Infringement at the Time of Importation

1. Asserted Method Claims

BHM alleges that Respondents are liable under section 337 for direct infringement where they or their end users allegedly practice the asserted method claims after importation using the

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imported accused devices: “Respondents’ acts of infringement in the United States including testing, use and demonstrations of the patented methods should be deemed acts of direct infringement in this Investigation.” *See, e.g.*, Compl. Br. 423 (referring to the asserted ’952 method claims). Controlling law, however, measures infringement at the time of importation. BHM continues, however, to allege Respondents directly infringe the asserted method claims. Specifically, BHM continues to assert direct infringement of method claims 9 and 14 of the ’952 patent by each of the Respondents’ devices based on applications and functionalities including one or more of “DLNA,” Google Play Music, Slacker, iHeartRadio, Pandora, vTuner, and Spotify. *See* Compl. Br. at 348-422.

Electronic Devices sets forth the applicable legal standard, that the practice of a method claim within the United States after importation cannot serve as the basis for an exclusion order. *Electronic Devices*, Comm’n Op., at 17 (“‘Use’ of a patented method may constitute infringement under 35 U.S.C. § 271(a), but domestic use of such a method, without more, is not a sufficient basis for a violation of section 337(a)(1)(B)(i), which concerns the ‘importation’ or ‘sale’ of articles that infringe a U.S. patent.”).

Respondents cannot be liable under section 337 for using an imported product to perform a patented method in the United States. Accordingly, it is therefore determined that BHM has not proven direct infringement by Respondents at the time of importation of the asserted method claims of the ’952 patent on any grounds, whether or not those associated applications are pre-installed on the accused products.

2. Asserted Device Claims

With respect to the asserted device claims, BHM has not shown direct infringement at the time of importation. BHM’s allegations as to the asserted device claims fall into two categories:

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(1) allegations on the basis of third party applications that are not installed at the time of importation, and (2) allegations on the basis of applications that, even though they may be pre-installed in part or in whole prior to importation, nevertheless do not contain all components required by the asserted claims absent post-importation activity, such as downloading user interface code or authorization tokens that are prerequisites to the applications' functioning.

a. Applications Not Preinstalled at the Time of Importation

With respect to applications that are not preinstalled, there can be no finding of a violation of section 337 based on the asserted device claims. The following table summarizes infringement allegations relating to applications that are not installed on any accused devices at the time of importation.

Respondent	Application	Asserted Device Claims
Samsung	[]	Claims 1, 11, 13 of '652 Patent
Samsung	[]	Claims 1, 11, 13 of '652 Patent
Samsung	[]	Claims 1, 11, 13 of '652 Patent
Samsung	[] (see CX-1185C; CX-1189C)	Claim 9 of '952 Patent; Claims 1, 11, 13 of '652 Patent
LG	[]	Claims 1, 11, 13 of '652 Patent
LG	[]	Claims 1, 11, 13 of '652 Patent
LG	[]	Claims 1, 11, 13 of '652 Patent
LG	[]	Claims 1, 11, 13 of '652 Patent
LG	[] (see RX-0632C; RX-0680C; RX-0790C)	Claim 9 of the '952 Patent; Claims 1, 11, 13 of '652 Patent

Resps. Br. at 24-25.

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For Samsung, none of the accused third-party applications are installed on any of the accused Samsung Visual Display Devices until after they are imported into the United States. See CX-1183C (Samsung Supplemental Response to Interrogatory No. 57), 2-5 and Appendix B.

For Samsung mobile devices, [

] See CX-1185C and CX-1189C (Samsung Supplemental Responses to Interrogatory No. 57), Appendices C and C-1.

With respect to LG, [

] RX-632C (LG's Responses to Interrogatories, Appendix A); RX-0680C (Park RWS); RX-0790C (errata to Park RWS).

With respect to these Samsung and LG devices, the only alleged direct infringement occurs post-importation, after accused applications are downloaded to the Samsung and LG Devices and then subsequently used in a particular manner. Therefore, it is determined that there can be no direct infringement at the time of importation, as at that time, these devices lack the accused applications. Accordingly, BHM has not shown that a violation of section 337 has occurred based on the importation into the United States, the sale for importation, or sale in the United States after importation of these specific Samsung and LG models.

b. Applications Preinstalled at the Time of Importation

With respect to applications that are preinstalled, in whole or in part, at the time of importation, Respondents and Google argue that there can be no finding of violation of section 337 based on the asserted device claims where BHM's allegations require post-importation activity, such as downloading user interface code or necessary authorization tokens resulting

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from a login or registration process and use of components not present at the time of importation. *See* Resps. Br. at 26-28. BHM alleges direct infringement of device claims 1, 11, and 13 of the '652 patent by Samsung, LG, and Toshiba devices, variously with vTuner, a web browser for internet radio broadcasts, Slacker, or iHeart Radio and Playlist Functionalities (including "DLNA," Spotify, Pandora, Google Play Music, and iHeartRadio) in various combinations, and direct infringement of device claims 23, 30, 34, 37, and 45 of the '873 patent by Samsung, LG, and Toshiba devices with, variously, "DLNA," DIAL-enabled YouTube, and Screen Mirroring functionalities. *Id.*

BHM's experts opine that these claims are practiced after importation and following activities performed in the United States. Respondents and Google argue that the applications that form the basis for BHM's infringement allegations require consumers to take additional steps to use the devices in an allegedly infringing manner after importation, such as accepting the terms and conditions of use, connecting the device to a local area network, accessing a content server over the Internet, and registering and paying for services. *See id.*

As to the device claims of the '652 patent, for example, BHM's infringement analysis is focused on activities after importation. BHM contends that the elements of the '652 patent claims "have been practiced in the United States." *See, e.g., CX-1067C (Zatkovich DWS)* at Q/A 122, 168, 186, 205, 223, 238, 153, 291, 309, 325, 339, 356, 367, 379, 416. The asserted claims require, among other things, an active network connection to connect devices to one or more content servers, which are typically provided by a third party and cannot be accessed without a user account and often a paid subscription, in order for the devices to receive a playlist and associated files and/or internet radio broadcasts. *See Loy Tr.* 83, 85-86, 104, 106-107 (testifying that infringement allegations of various accused functionalities requires a user to have

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an account, be logged in, have a premium account, and updates to software). As BHM's expert Mr. Zatkovich testified, [

J. Zatkovich Tr. 149 (“[
].”).

Accordingly, Respondents and Google argue that the devices themselves cannot infringe “at the time of importation” because they require significant post-importation activity and components. *See* Resps. Br. at 26-27.

Despite the arguments presented by Respondents and Google, the administrative law judge declines to find that all accused products with accused functionalities installed at the time of importation do not infringe the asserted claims “at the time of importation” because certain post-importation activity may be required before the accused functionality can be used. Such a determination requires inquiry into the specific nature of the post-importation activity and its relationship to the accused functionality, and ought to be conducted on a case-by-case basis.

3. The *Suprema* Opinion

As discussed above, and in more detail below, BHM fails to show direct infringement of the asserted claims. BHM is thus left with claims of indirect infringement, which also fail. In fact, all of BHM's allegations of indirect infringement fail, regardless of whether the claim is a method, system, or product claim and regardless of whether they are asserted against products with pre-installed associated applications or applications that are loaded only after importation.

As a threshold matter, the Federal Circuit's decision in *Suprema* requires finding against BHM as to its allegations of induced infringement because all such claims rely upon post-importation activity of users. Respondents argue that the same reasoning applies to BHM's

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allegations of contributory infringement here. *See* Resps. Br. at 29-30. Even if *Suprema* did not preclude such claims, BHM has also failed to adduce evidence sufficient to support a finding of indirect infringement.

a. Induced Infringement

The Federal Circuit's recent decision in *Suprema* precludes BHM's allegations of induced infringement of all of the asserted claims. "[A]n exclusion order based on a violation of 19 U.S.C. § 1337(a)(1)(B)(i) may not be predicated on a theory of induced infringement under 35 U.S.C. § 271(b) where direct infringement does not occur until after importation of the articles the exclusion would bar." *Suprema*, slip op. at 4.

All of BHM's inducement allegations are predicated on alleged direct infringement that does not occur until after importation of the accused articles. Specifically, BHM argues that end users in the United States have been induced to directly infringe the asserted claims of the '952 and '652 patents after importation of the accused devices. *See* CX-1067C (Zatkovich DWS) Q/A 122, 153, 206, 168, 169, 186, 223, 238, 153, 155, 291, 325, 339, 356, 367, 369, 379, 416. BHM alleges induced infringement of system claims 7 and 18 of the '593 patent by Samsung and LG mobile devices associated with Google Locations+ on the basis that "[

], it is substantially likely that . . . LG and Samsung customers in the U.S. have in fact practiced the inventions as claimed." *See* Resps. Br. at 29. BHM further alleges induced infringement of the method and device claims of the '873 patent in the United States based on end users using the accused functionalities to share content from the accused device to a second (not-imported) device in the United States. *See id.* BHM has thus failed as a matter of law to prove induced infringement of all asserted claims. *See* CX-1067C (Zatkovich

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DWS) Q/A 122, 153, 206, 168, 169, 186, 223, 238, 153, 155, 291, 325, 339, 356, 367, 369, 379, 416.

b. Contributory Infringement

Recognizing the statement in *Suprema* that any concerns over the Commission's ability to carry out its mandate can be addressed "via resort to § 271(a) or § 271(c), or even § 271(b) where the direct infringement occurs pre-importation," *Suprema*, at 21 fn. 4, Respondents and Google argue that BHM's allegations of contributory infringement in this investigation fall within the Federal Circuit's reasoning in *Suprema* for two reasons. *See* Resps. Br. at 29-30. First, they argue that contributory infringement requires a showing that the alleged infringer knew "that the combination for which his component was especially designed was both patented and infringing." *Id.* (citing *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 41). Thus, they argue that a finding of contributory infringement, like induced infringement, focuses on the knowledge and intent of the alleged contributor, and the inquiry is not limited to the characteristics of the product as imported. *Id.* They further argue that, as with induced infringement, whether or not a product contributes to infringement at the time of importation cannot be determined strictly with reference to the product itself and requires an analysis of the intent and knowledge of the accused infringer. *Id.* Second, they argue that, just as with induced infringement, the contributory act must precede the infringement, and infringement is not complete until there has been direct infringement after importation. *Id.* Therefore, according to Respondents and Google, under BHM's allegations, direct infringement occurs through the acts of end user customers in the United States only after importation and the requirements for contributory infringement are not met before importation. *Id.*

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Inasmuch as the holding in *Suprema* specifically addressed induced infringement and was silent with respect to contributory infringement, the administrative law judge declines to extend *Suprema* to the allegations of contributory infringement raised in this investigation.

Nevertheless, as explained below, BHM has failed to adduce evidence showing that Respondents are liable for contributory infringement of the patents asserted by BHM.

D. Indirect Infringement

As discussed in more detail below in the sections addressing the infringement analysis of specific asserted patents, BHM has not proved indirect infringement for several independent reasons. First, BHM fails to show specific instances of direct infringement or that the accused devices necessarily infringe. Second, BHM fails to show the required knowledge and intent necessary for a finding of indirect infringement. Third, BHM fails to present facts necessary for a finding of induced and contributory infringement, specifically, affirmative acts of inducement and that an accused product is a material part of the invention lacking substantial noninfringing uses.

IV. The Asserted Claims and Accused Products

A. The '873 Patent

Asserted U.S. Patent No. 8,214,873 (“the ’873 patent”) is titled, “Method, System, and Computer-Readable Medium for Employing a First Device to Direct a Networked Audio Device to Render a Playlist.” JX-0003 (’873 patent). The ’873 patent issued on July 3, 2012, and the named inventor is Martin Weel. *Id.*

Black Hills asserts independent claims 1, 23, and 30, and dependent claims 5, 34, 37,⁶ and 45. The relevant claims read as follows:

⁶ Claim 37 depends from unasserted claim 36, which depends from asserted claim 30.

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1. A method for facilitating the presentation of media, the method comprising:

displaying, on a first device, at least one device identifier identifying a second device;

receiving user first input selecting the at least one device identifier;

receiving, on the first device, a playlist, the received playlist comprising a plurality of media item identifiers;

receiving user second input selecting at least one media item identifier from the received playlist; and

directing, from the first device, the second device to receive a media item identified by the at least one media item identifier from a content server, without user input via the second device.

5. The method as recited in claim 1,

wherein the first device comprises a mobile phone.

23. A device for selecting a media item, the device comprising:

a display for displaying at least one device identifier; and

a network transceiver for facilitating communication between the device and at least one second device on a network, wherein the device is configured to facilitate:

displaying on the display the at least one device identifier identifying the at least one second device;

receiving user first input selecting the at least one device identifier;

receiving a playlist via the network transceiver;

receiving user second input selecting at least one media item name from the playlist; and

directing the at least one second device to send information representative of the at least one media item name to a content server without user input via the second device, and to receive a media item corresponding to the at least one media item name from the content server.

30. A device for selecting a media item, the device comprising:

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a display for displaying at least one device identifier; and

a network transceiver for facilitating communication between the device and at least one second device via a network, wherein the device is configured to facilitate:

displaying on the device the at least one device identifier identifying the at least one second device;

receiving user first input selecting the at least one device identifier;

receiving a playlist, the playlist comprising a plurality of media item identifiers;

receiving user second input selecting at least one media item identifier from the playlist; and

directing, from the device, the at least one second device to receive the media item identified by the at least one media item identifier from a content server, without user input via the second device.

34. The device as recited in claim 30,

wherein the device comprises a mobile phone.

36. The device as recited in claim 30,

wherein the device comprises a remote control operative to control the at least one second device, and the at least one second device comprises a media rendering device.

37. The device as recited in claim 36,

wherein the device is operative to adjust a volume parameter on the second device.

45. The device as recited in claim 30,

wherein directing the at least one second device to receive the media item identified by the at least one media item identifier from the content server, without user input via the second device, comprises directing the at least one second device to stream the media item identified by the at least one media item identifier from the content server, without user input via the second device.

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Black Hills relies on independent claims 17 and 27, and on dependent claims 8,⁷ 16, 19, and 22 to show satisfaction of the technical prong of the domestic industry requirement. The relevant claims read as follows:

7. The method as recited in claim 1,

wherein the first device comprises a remote control operative to control the second device and the second device comprises a media rendering device.

8. The method as recited in claim 7,

wherein the first device is operative to adjust a volume parameter on the second device.

16. The method as recited in claim 1,

wherein directing the second device to receive the media item identified by the at least one media item identifier from the content server further comprises directing the second device to stream the media item identified by the at least one media item identifier from the content server.

17. A method for obtaining a song, the method comprising:

obtaining a playlist on a first device over a network, the playlist comprising a plurality of song identifiers;

displaying on the first device at least one device identifier identifying a second device;

selecting, responsive to user first input at the first device, the at least one device identifier;

selecting, responsive to user second input at the first device, a song identifier from the playlist; and

directing, from the first device, the second device to obtain a song identified by the song identifier without user input via the second device.

⁷ Claim 8 depends from unasserted claim 7 (and on which Black Hills does not rely for domestic industry purposes), which depends from asserted independent claim 1.

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19. The method of claim 17, further comprising:

requesting, by the second device, the song identified by the song identifier from a content server; and

streaming the song from the content server to the second device.

22. The method of claim 17, further comprising

affecting a volume of the song on the second device from the first device.

27. A method of directing a second device from a first device, the method comprising:

displaying, on the first device, a plurality of device identifiers;

receiving user first input identifying one of the plurality of device identifiers, wherein the one of the plurality of device identifiers identifies the second device;

sending, from the first device, at least one attribute of a playlist corresponding to a selected playlist name to a playlist server;

receiving a playlist from the playlist server, the received playlist corresponding to the at least one attribute and comprising a plurality of media item identifiers;

receiving, at the first device, user second input identifying at least one media item identifier from the received playlist; and

directing, from the first device and without user input via the second device, the second device to obtain a media item identified by the at least one media item identifier from a content server and to play the media item.

B. The '652 Patent

Asserted U.S. Patent No. 8,050,652 (“the ‘652 patent”) is titled, “Method and Device for an Internet Radio Capable of Obtaining Playlist Content from a Content Server.” JX-0009 (‘652 patent). The ‘652 patent issued on November 1, 2011, and the named inventors are Safi Qureshey and Daniel D. Sheppard. *Id.*

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Black Hills asserts independent claim 1 and dependent claims 11 and 13. These claims read as follows:

1. An electronic device comprising:
 - a) a network interface enabling the electronic device to receive an Internet radio broadcast and being further adapted to communicatively couple the electronic device to a central system;
 - b) a system enabling playback of audio content from a playlist assigned to the electronic device via the central system; and
 - c) a control system associated with the network interface and the system enabling playback of the audio content indicated by the playlist, and adapted to:
 - i) enable a user of the electronic device to select a desired mode of operation from a plurality of modes of operation comprising an Internet radio mode of operation and a playlist mode of operation;
 - ii) receive and play the Internet radio broadcast when the desired mode of operation is the Internet radio mode of operation; and
 - iii) when the desired mode of operation is the playlist mode of operation:
 - receive the playlist assigned to the electronic device from the central system, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device;
 - receive information from the central system enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source;
 - obtain the ones of the plurality of songs from the at least one remote source; and
 - play the audio content indicated by the playlist.
11. The electronic device of claim 1 wherein the control system is further adapted to:
 - a) send a request to a remote server for supplemental information related to a song in real-time while the song is playing;
 - b) receive the supplemental information from the remote server; and

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c) present the supplemental information to the user of the electronic device.

13. The electronic device of claim 1 wherein the control system is further adapted to:

receive and display a recommended song.

C. The '952 Patent

Asserted U.S. Patent No. 8,045,952 is titled, "Method and Device for Obtaining Playlist Content over a Network." JX-0007 ('952 patent). The '952 patent issued on October 25, 2011, and the named inventors are Safi Qureshey and Daniel D. Sheppard. *Id.*

Black Hills asserts independent claim 9 and dependent claim 14. These claims read as follows:

9. A method comprising:

receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device;

receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source; and

obtaining the ones of the plurality of songs from the at least one remote source.

14. The method of claim 9

wherein the electronic device is one of a plurality of electronic devices associated with a personal audio network comprising the plurality of electronic devices and a personal audio network server, and

receiving the playlist assigned to the electronic device comprises receiving the playlist from the personal audio network, wherein the personal audio network server enables a user to assign the playlist to the electronic device; and

receiving the information comprises receiving information from the personal audio network server enabling the electronic device to obtain the ones of the plurality of songs from the at least one remote source.

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D. The '593 Patent

Asserted U.S. Patent No. 6,618,593 ("the '593 patent") is titled, "Location Dependent User Matching System." JX-0011 ('593 patent). The '593 patent issued on September 9, 2003, and the named inventors are Charles Drutman, Darlene Drutman, Andrew Egendorf, Norton Greenfeld, and Eugene Pettinelli. *Id.*

Black Hills asserts independent claim 7 and dependent claim 18. These claims read as follows:

7. A system for matching users of mobile communications devices comprising:
 - a first mobile communications device for transmitting information defining a location of the first mobile communications device;
 - a second mobile communications device for transmitting information defining a location of the second mobile communications device and a user sending status; and
 - a central unit having a processor coupled to a memory, the central unit capable of communicating with the first mobile communications device over a first wireless communications link and with the second mobile communications device over a second wireless communications link, the memory storing a first user profile including information associated with a user of the first mobile communications device and a second user profile including information associated with a user of the second mobile communications device, wherein the central unit receives the user sending status from the second mobile communications device and the information defining the locations of the first and the second mobile communications devices and wherein the processor receives the first and the second user profiles to match information of the users and, if there is a match and depending upon the user sending status, effects the transmission to the first mobile communications device of locating information based upon the information defining the locations of the first and the second mobile communications devices.
18. The system according to any of claims 1, 4 or 7,

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wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information.

E. The Accused “Mobile Devices”

BHM accuses certain “mobile devices” of infringing the asserted patents, including Internet-enabled mobile telephones and tablets. *See* Compl. Br. at 18-20. BHM accuses all Respondents, except Panasonic, of the importation and sale of infringing mobile devices. *Id.* The mobile devices implement proprietary and third party software modules, applications, and functionalities (described below) that, when implemented on the accused devices, are accused of infringing the claims of the asserted patents. *Id.*

BHM has identified a representative mobile phone for each of the Respondents that it alleges is representative of all that Respondent’s accused mobile devices. *See* Compl. Br. at 18-20. The representative mobile devices for the Respondents are as follows:

- []
- []
- Toshiba Excite Pure Tablet

Id.

BHM has also identified a representative domestic industry mobile device that it alleges practices the asserted patents, the []. *See* Compl. Br. at 18-20.

F. The Accused “Player Devices”

BHM accuses certain “player devices” of infringing the asserted patents, including Internet-enabled televisions, Blu-ray disc players, and home theater systems. *See* Compl. Br. at 18. BHM accuses all Respondents of the importation and sale of infringing player devices. *Id.* The player devices employ a number of proprietary and third party software modules,

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applications, and functionalities that, when implemented on the accused player devices are accused of infringing the claims of the asserted patents.

BHM has identified a representative television for each of the Respondents that it alleges to be representative of all player devices imported by that Respondent. *See* Compl. Br. at 18.

The representative player devices are as follows:

- []
- []
- []
- Toshiba 39L4300U TV

Id.

BHM has also identified a representative domestic industry player device that it alleges practices the asserted patents, the []. *See* Compl. Br. at 18.

G. The Accused Functionalities

The categories of software applications and functionalities that, in conjunction with the accused products, BHM accuses of infringing the asserted patents are as follows:

1. Playlist Applications

The playlist applications relevant to the claims of both the '652 and '952 patents are DLNA (for which certain Respondents use proprietary names such as Samsung Link, AllShare, AllShare Play, Nearby Devices, LG Smart Share, Toshiba Media Player, and Panasonic DLNA Smart Home Networking), *Google Play Music*, *iHeartRadio*, *Pandora*, *Slacker Radio*, and *Spotify*. The Internet Radio applications relevant to the claims of the '652 patent are *vTuner*, *iHeartRadio*, *Shoutcast* or a suitable web browser for accessing Shoutcast's website, and Slacker Radio. *See* Compl. Br. at 19.

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2. Second Screen Functions

The software for the player devices and the mobile devices relevant to the “second screen” and related playlist features and functions claimed in the ’873 patents are DLNA, Miracast/Screen Mirroring, and DIAL-enabled YouTube. *See* Compl. Br. at 19.

3. Location Finder Applications

BHM accuses mobile phones with Google+ Locations of infringing the claims of the ’593 patent. *See* Compl. Br. at 19. Google+ Locations was previously known as Google Latitude, which is relevant for the purposes of the technical prong of the domestic industry requirement, inasmuch as Google Latitude was in use at the time of the filing of the complaint. *Id.*

V. The ’873 Patent

A. Overview of the Technology

1. UPnP AV

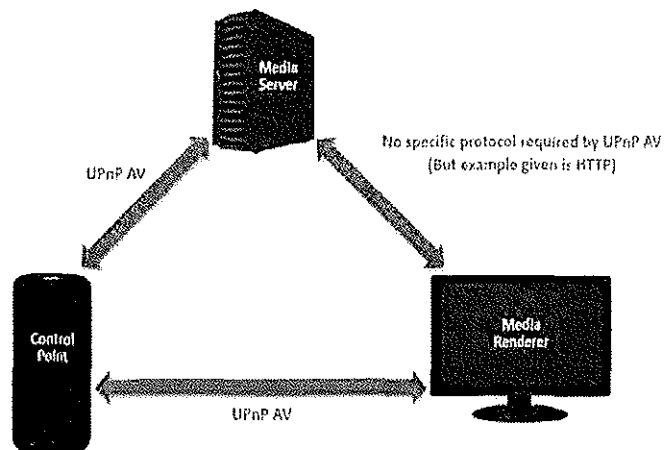
Universal Plug and Play AV

(“UPnP AV”) is an industry standard from the early 2000s that specified protocols for sharing multimedia content across devices that are on the same local area network (“LAN”).

RX-0676C (Cho RWS) Q/A 22. As

illustrated in the graphic to the right, UPnP AV defined three type of devices: a “Media Server” (or “server”), a “Control Point” (or “controller”), and a “Media Renderer” (or “renderer”).

The server stores media content, such as songs, movies, and photos. *See* RX-0460C (Almeroth DWS) Q/A 88. The controller can be used to find an available server on the LAN,



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access and browse a list of the media items that are stored on the server, and then select a particular media item for playback. *Id.* at Q/A 29-30. The controller is also used to find an available renderer on the LAN, and to request the renderer to play back the selected media item.

Id.

As shown in the diagram above, the UPnP AV specification contemplates three communication pathways: a controller-server path, a controller-renderer path, and a renderer-server path. *See* RX-0140 at 5, Fig. 3 (UPnP AV specification). UPnP AV requires that a specific protocol be used for communications in the controller-server and controller-renderer paths. *Id.* Regarding the renderer-server path, UPnP AV does not mandate the use of any particular protocol, instead leaving it up to the system designer to select one to use. *Id.* at 6. UPnP AV does, however, provide an example of a pre-existing protocol that can be used for this communication path, *i.e.*, the HTTP protocol. *Id.*

2. DLNA

Digital Living Network Alliance (“DLNA”) is a set of guidelines, finalized in 2004, that uses preexisting standardized protocols to enable multiple devices, including those manufactured by different companies, to share various types of digital content within a LAN. RX-0671C (Lipoff RWS) Q/A 62-63; RX-0676C (Cho RWS) Q/A 21, 23-27. Among the standardized protocols that DLNA adopted are UPnP AV and HTTP. RX-0671C (Lipoff RWS) Q/A 36; RX-0676 (Cho RWS) Q/A 23, 30-32.

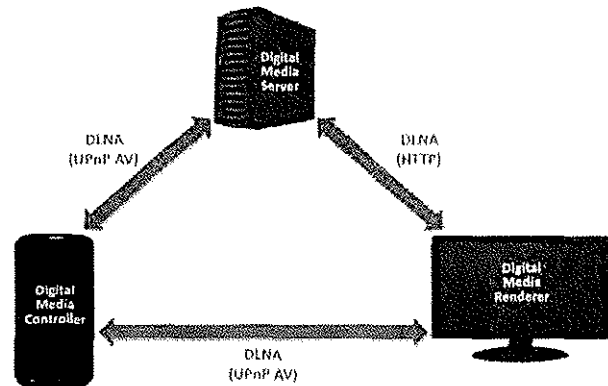
The basic operational mode of DLNA is the “three-box model,” as shown in the diagram below.⁸ RDX-0519C.002 (DLNA diagram); RX-0671C (Lipoff RWS) Q/A 64; RX-0676C (Cho

⁸ DLNA has another configuration called the “two-box model,” which BHM has not accused of infringing the ’873 patent.

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RWS) Q/A 28-29. The three-box model involves three classes of devices: a Digital Media Server (“DMS” or “server”), a Digital Media Controller (“DMC” or “controller”), and a Digital Media Renderer (“DMR” or “renderer”). RX-0671C (Lipoff RWS) Q/A 64; RX-0676C (Cho RWS) Q/A 29. These device classes correspond to the Media Server, Control Point, and Media Renderer defined in the UPnP AV standard. RX-0676C (Cho RWS) Q/A 23-25, 27, 29; *see also* RX-0460C (Almeroth DWS) Q/A 66;

RDX-0519C.002 (DLNA diagram). In DLNA, communications between the controller and the server, and between the controller and the renderer, use the protocols defined by the UPnP AV standard. RX-0676C (Cho RWS) Q/A 23-26; RDX-0519C.003 (DLNA diagram);



RX-0671C (Lipoff RWS) Q/A 63. For communications between the renderer and the server, DLNA requires the use of the HTTP protocol (or another protocol known as RTP/RTSP). RX-0676C (Cho RWS) Q/A 23, 30-32; RDX-0519C.002 (DLNA diagram).

a. The Controller-Server Communication Path

The controller-server communication path, which uses the UPnP AV standard, is used by the controller both to locate a server and to obtain information about the content on the server. RX-0671C (Lipoff RWS) Q/A 68-69; RX-0676C (Cho RWS) Q/A 30, 51. Initially, the controller broadcasts a request to all devices on the LAN, seeking those that are configured to act as servers. RX-0671C (Lipoff RWS) Q/A 68. The server’s response to this request enables the

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controller to discover the server. *Id.* The controller can then send browse or search requests to the server in order to retrieve a list of the contents stored on the server. *Id.* at Q/A 69.

b. The Controller-Renderer Communication Path

The controller-renderer communication path, which also uses the UPnP AV standard, is initially used by the controller to locate an available renderer on the same LAN. RX-0671C (Lipoff RWS) Q/A 70; RX-0676C (Cho RWS) Q/A 30-32, 51. After the user of the controller has selected a content item stored on the server that she wishes to view, the controller sends the renderer a “SetAVTransportURI” request, which includes a Uniform Resource Identifier (“URI”) that identifies the location of the content on the network. RX-0671C (Lipoff RWS) Q/A 70; RX-0676C (Cho RWS) Q/A 30. Following the “SetAVTransportURI” request, the controller also sends a “Play” request to the renderer. *Id.* Upon receipt of the Play request, the renderer decides whether to play the item. *Id.*

c. The Renderer-Server Communication Path

The renderer-server communication path, which uses the HTTP standard, is used by the renderer to retrieve items stored on the server. RX-0671C (Lipoff RWS) Q/A 71; RX-0676C (Cho RWS) Q/A 30-31, 51. A renderer may use an optional “HTTP HEAD” request to acquire certain information from the server about the selected content item, such as its media type or duration. RX-0671C (Lipoff RWS) Q/A 71; RX-0676C (Cho RWS) Q/A 32. When the renderer determines that it can play the selected media content item, the renderer can retrieve the item from the server by using an “HTTP GET” request. RX-0676C (Cho RWS) Q/A 30, 51. In response, the server will stream the selected media item to the renderer for playback. *Id.*

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d. Getting a List of Contents from a DLNA-Compliant Server

The content of the server is typically organized in files and folders, similar to the file system used by the Windows operating system. RX-0676C (Cho RWS) Q/A 38. A controller can retrieve a list of the contents stored on a server by using a “browse” request or a “search” request, both of which are defined in and adopted from UPnP AV. RX-0671C (Lipoff RWS) Q/A 69; RX-0676C (Cho RWS) Q/A 37. A “browse” request is used to ask the server to identify all contents of a specific folder, including its files and subfolders. RX-0676C (Cho RWS) Q/A 38, 41. A device may use one or more “browse” requests to ask the server to identify all files on the server. *Id.* at Q/A 41. A “search” request is used to search the content of the server for something specific, such as a file with a particular name. *Id.* at Q/A 43. The server’s response to a given “browse” or “search” request is the same regardless of the identity of the device that sent the request. *Id.* at Q/A 39, 44.

e. DLNA Only Defines a Minimum Set of Requirements

DLNA defines only a minimum set of requirements so additional functionalities can be added by device manufacturer or application developers. The DLNA guidelines require the use of certain communication protocols and media formats for communications across various types of devices. RX-0671C (Lipoff RWS) Q/A 62-63; RX-0676C (Cho RWS) Q/A 21. Beyond these minimum requirements, however, the device manufacturer or application developer is free to control the details of how its DLNA-compliant device or application operates. RX-0671C (Lipoff RWS) Q/A 67; RX-0676C (Cho RWS) Q/A 52. For example, DLNA requires that a renderer that receives a “SetAVTransportURI” request and a “Play” request process and respond in a certain way, if the renderer is going to proceed with playing the selected media item. RX-0671C (Lipoff RWS) Q/A 70, 76; RX-0676C (Cho RWS) Q/A 61-62. Nothing in the

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DLNA standard precludes the manufacturer from configuring its renderer to perform a series of checks before deciding whether to accept the request to play media. RX-0671C (Lipoff RWS) Q/A 67; RX-0676C (Cho RWS) Q/A 63-66; RDX-0519C.003 & 008 (Cho DLNA demonstratives). For this reason, it is entirely possible that DLNA-compliant devices from two different manufacturers will have certain operational or design differences. *See, e.g.*, RX-0671C (Lipoff RWS) Q/A 31.

3. DIAL

The DIAL protocol concerns the automatic discovery and launch from one device of an application installed on another device connected to the same WiFi network. *See* RX-0666C (Bishop RWS) Q/A 63; CX-1297 (DIAL Protocol). BHM's infringement allegations relating to DIAL pertain solely to the YouTube application, and are addressed in a separate section below relating to Google products.

4. Screen Mirroring

Screen mirroring is a technology that enables a user to capture an image and any accompanying audio from one device, and replicate or "mirror" the image/audio onto another device, typically one with a larger display. RX-0671C (Lipoff RWS) Q/A 80-81; RX-0677C (Song RWS) Q/A 4; RDX-0520.001-002 (Screen mirroring slides); RDX-0522C.001-002 (Screen mirroring slides). For example, a user can use screen mirroring to replicate a movie or a photograph stored and displayed on the screen of his smartphone onto a TV screen. RX-0671C (Lipoff RWS) Q/A 81; RX-0677C (Song RWS) Q/A 9. The device from which the image is copied is called the "source," and the device that receives the copied image is called the "sink" or "target." RX-0671C (Lipoff RWS) Q/A 82; RX-0677C (Song RWS) Q/A 4.

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Miracast is a screen mirroring standard that requires communications between the source and sink to use a “WiFi Direct” connection. RX-0677C (Song RWS) Q/A 10, 18. WiFi Direct is, in turn, a standard promulgated by the global standard-setting organization known as the WiFi Alliance. RX-671C (Lipoff RWS) Q/A 85; RX-0677C (Song RWS) Q/A 10, 18. The “WiFi Direct” standard uses communication protocols that are completely different than those used in the “WiFi” standard, which was also promulgated by the WiFi Alliance. RX-0677C (Song RWS) Q/A 19. The WiFi standard defines a set of communication protocols for a device to use to connect to a LAN. *Id.* In contrast, in WiFi Direct, the source and the sink are connected directly to each other without using a LAN or an Internet connection. *Id.*; RX-0671C (Lipoff RWS) Q/A 83. WiFi Direct is a peer-to-peer connection that emulates a wired connection, such as that provided by an HDMI cable. *Id.*

B. The Accused Products

All of the '873 patent claims asserted by BHM are device claims that it alleges are directly infringed by Respondents' accused mobile devices, except for method claims 1 and 5, which are indirectly infringed. *See* Compl. Br. at 65. Respondents' accused products are mobile telephones and tablets, televisions, Blu-ray players and home theater systems. BHM argues that these products “include one or more of three different functionalities (DLNA-type media sharing, DIAL-enabled YouTube and/or Screen Mirroring), each of which alone infringes the '873 patent.” *Id.*

BHM provides the following tabular summaries of the asserted claims and the devices and functionalities against which they are asserted:

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Summary of '873 Claims Infringed by Samsung		
Accused Products / Functionalities	Directly Infringed	Indirectly Infringed
Player Devices with DLNA Functionality		1
Mobile Devices with DLNA Functionality	23, 30, 34, 37, 45	1, 5
Mobile Devices with DIAL Functionality	23, 30, 34, 37, 45	1, 5
Mobile Devices with Screen Mirroring Functionality	30, 34, 37, 45	

Summary of '873 Claims Infringed by LG		
Accused Products / Functionalities	Directly Infringed	Indirectly Infringed
Player Devices with DLNA Functionality		1
Mobile Devices with DLNA Functionality	23, 30, 34, 37, 45	1, 5
Mobile Devices with DIAL Functionality	23, 30, 34, 45	1, 5
Mobile Devices with Screen Mirroring Functionality	30, 34, 37, 45	

Summary of '873 Claims Infringed by Toshiba		
Accused Products / Functionalities	Directly Infringed	Indirectly Infringed
Player Devices with DLNA Functionality		1
Mobile Devices with DLNA Functionality	23, 30, 37, 45	1
Mobile Devices with DIAL Functionality	23, 30, 45	1

Summary of '873 Claims Practiced by []		
Accused Products / Functionalities	Directly Practiced	Indirectly Practiced
Player Devices with DLNA Functionality	1, 16, 17, 19	1, 16, 17, 19
Mobile Devices with DLNA Functionality	1, 5, 16, 17, 19, 23, 27, 30, 34, 45	1, 5, 16, 17, 19, 27
Mobile Devices with DIAL Functionality	1, 5, 16, 23, 27, 30, 34, 45	1, 5, 16, 27

Compl. Br. at 66.

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BHM identifies the following models as the Samsung accused products: [

]

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[

]

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[

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[

]. Compl. Br. at 67-68 n.12.

BHM identifies the following models as LG accused products: [

]

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[

]. Compl. Br. at 69 n.13.

BHM identifies the following models as Toshiba accused products: the 32L4300U, 39L4300U, 50L4300U, 58L4300U, 50L7300U, 58L7300U, 65L7300U, 58L7350U, 65L7350U, 58L9300U, 65L9300U, 84L9300U, BDK23KU, BDK33KU, BDX2300KU, BDX2400U, BDX330KU, BDX3400KU, BDX4300KU, BDX5300KU, BDX5400KU, BDX6400KU, Excite 7.7, Excite Pure, Excite Pro, and Excite Write. Compl. Br. at 69 n.14.

BHM identifies the following models as [] products on which it relies to show satisfaction of the domestic industry requirement: [] phone models []; [] tablet models []; [] Blu-ray Players, including without limitation the [] models; [] Home Theater Systems, including without limitation the [] models; and [] connected TVs, including without limitation the [] models. Compl. Br. at 69-70.

C. Claim Construction

1. General Principles of Law⁹

Claim construction begins with the plain language of the claim.¹⁰ Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art,

⁹ The legal principles set forth in this section apply equally to the claim construction of the other patents asserted in this investigation.

¹⁰ Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm.*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g. Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

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viewing the claim terms in the context of the entire patent.¹¹ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

In some instances, claim terms do not have particular meaning in a field of art, and claim construction involves little more than the application of the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. “In such circumstances, general purpose dictionaries may be helpful.” *Id.*

In many cases, claim terms have a specialized meaning, and it is necessary to determine what a person of skill in the art would have understood the disputed claim language to mean. “Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to ‘those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.’” *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). The public sources identified in *Phillips* include “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.*

In cases in which the meaning of a claim term is uncertain, the specification usually is the best guide to the meaning of the term. *Id.* at 1315. As a general rule, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations.

¹¹ Factors that may be considered when determining the level of ordinary skill in the art include: “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984).

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Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996). The specification is, however, always highly relevant to the claim construction analysis, and is usually dispositive. *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Moreover, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* at 1316.

Claims are not necessarily, and are not usually, limited in scope to the preferred embodiment. *RF Delaware, Inc. v. Pacific Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003); *Decisioning.com, Inc. v. Federated Dep’t Stores, Inc.*, 527 F.3d 1300, 1314 (Fed. Cir. 2008) (“[The] description of a preferred embodiment, in the absence of a clear intention to limit claim scope, is an insufficient basis on which to narrow the claims.”). Nevertheless, claim constructions that exclude the preferred embodiment are “rarely, if ever, correct and require highly persuasive evidentiary support.” *Vitronics*, 90 F.3d at 1583. Such a conclusion can be mandated in rare instances by clear intrinsic evidence, such as unambiguous claim language or a clear disclaimer by the patentees during patent prosecution. *Elekta Instrument S.A. v. O.U.R. Sci. Int’l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

If the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence may be considered. Extrinsic evidence consists of all evidence external to the patent and the prosecution history, and includes inventor testimony, expert testimony, and learned treatises. *Phillips*, 415 F.3d at 1317. Inventor testimony can be useful to shed light on the relevant art. In evaluating expert testimony, a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the

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prosecution history, in other words, with the written record of the patent. *Id.* at 1318. Extrinsic evidence may be considered if a court deems it helpful in determining the true meaning of language used in the patent claims. *Id.*

2. Level of Ordinary Skill

The expert for Respondents and Intervenor, Dr. Almeroth, testified that on or around May 5, 2004, a person of ordinary skill in the art in the field of the '873 patent would have had at least a Bachelor of Science degree in electrical engineering, computer engineering, or computer science, and approximately two years of professional experience with computer networking and multimedia technologies, or the equivalent. *See* RX-0460C (Almeroth DWS) Q/A 18. Dr. Almeroth further testified that additional graduate education could substitute for professional experience, while significant experience in the field might substitute for formal education. *See id.*

BHM's expert, Dr. Loy, testified that one of ordinary skill in the art with respect to the '873 patent would have had a Bachelor's degree in computer science or electrical engineering, or the equivalent. *See* CX-1068C (Loy DWS) Q/A 65; CX-1401C (Loy RWS) Q/A 35. Dr. Loy further testified that "a significant percentage of people involved in the art at the time did not even have college degrees." CX-1401C (Loy RWS) Q/A 36.

As proposed by Respondents and Intervenor, it is determined that a person of ordinary skill in the art with respect to the '873 patent would have had at least a Bachelor of Science degree in electrical engineering, computer engineering, or computer science, and approximately two years of professional experience with computer networking and multimedia technologies, or the equivalent. It is further determined that additional graduate education could substitute for professional experience, while significant experience in the field might substitute for formal

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education. This level of ordinary skill takes into account the sophistication of the technology area discussed in the '873 patent in May 2004 and incorporates the typical education and experience level of active workers in the field in May 2004. *See* RX-0460C (DWS Almeroth) Q/A 22. As of any date in the early 2000s, a person with an undergraduate degree (or its equivalent) would have had little experience in networking and little practical experience in building network-based applications. *See id.* Only with some additional practical experience, training, or education would a person have had sufficient knowledge to develop a system based on the '873 claims without undue experimentation. *See id.*

3. Disputed Claim Terms

- a. “without user input via the second device” (claims 1, 17, 23, 27, 30, 45)

Below is a chart setting forth the parties' proposed constructions.¹²

¹² This initial determination addresses only the disputed claim terms identified by the parties as needing construction. *See* Joint Outline of Issues to Be Decided in the Final Initial Determination (EDIS Doc. No. 530049) (“Joint Outline of Issues”). The parties identified the claim terms for construction in a joint filing required by Ground Rule 11, which provides: “On the same day the initial posthearing briefs are due, the parties shall file a comprehensive joint outline of the issues to be decided in the final Initial Determination. The outline shall refer to specific sections and pages of the posthearing briefs. Moreover, the claim terms briefed by the parties must be identical. For example, if the construction of the claim term ‘wireless device’ is disputed, the parties must brief that exact claim term. If a party briefs only a portion of the claim term such as ‘wireless’ or ‘device,’ that section of the brief will be stricken.” Ground Rule 11 (emphasis original) (attached to Order No. 14 (Issuance of Amended Ground Rules) (Aug. 6, 2013)).

Appendix A to the parties' Joint List of Disputed Claim Terms for Construction and Proposed Constructions Thereof (EDIS Doc. No. 518351), which was filed pursuant to Ground Rule 11 discussed above, shall hereinafter be referred to as “Joint List of Proposed Constructions.”

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Claim Term/Phrase	Complainants' Proposed Construction	Respondents and Intervenor's Proposed Construction	Staff's Proposed Construction
"without user input via the second device"	"No user input is required at the second device following direction from the first device"	Invalid under 35 U.S.C. § 112 ¶ 1 Or, in the alternative: "no user input is required at the second device prior to the initiation of a shared media experience." Or, in the alternative: Invalid under 35 U.S.C. § 112 ¶ 2	"No user input is required at the second device following direction from the first device" – to the extent this construction reflects statements in the prosecution history

The claim term "without user input via the second device" appears in claims 1, 17, 23, 27, 30, and 45 of the '873 patent. As proposed by Respondents and Intervenor, the term is construed to mean "no user input is required at the second device prior to the initiation of a shared media experience." This construction reflects statements made by the applicant during prosecution to distinguish the claimed inventions from the Lee reference. *See* RX-0460C (Almeroth DWS) Q/A 31-46; RX-0671C (Lipoff RWS) Q/A 135-50.

During prosecution of U.S. Patent No. 8,028,323 ("the '323 patent"), which is the parent patent to the '873 patent, the Examiner rejected the claims as unpatentable in view of a prior art combination that included the Lee reference. *See* JX-0002 ('323 File History) (BHM-ITC-006068). Lee describes a system that permits "a plurality of online co-users [to] share a dynamic content experience over the Internet using a shared playlist with tracks from each user's computer." RX-0047 (Lee) (¶ 0007). The system includes an "inviter client" computer and an "invitee client" computer, connected via a network to web and communications servers. *See id.*

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(Abstract, ¶ 0044, FIG. 2). The inviter client displays a list of any pre-specified co-users that are currently online for selection by the user. *Id.* (¶¶ 0053, 0054, FIGS. 5 & 6). To launch a content sharing session, the inviter client sends an invitation to the selected invitee client. If the user at the invitee client accepts the invitation (by providing user input), then a “content sharing communication path” is established between the inviter and the invitee, permitting the two users to listen to the same music simultaneously. *Id.* (¶¶ 0008, 0009, 0065, FIG. 9). Thereafter, if the user at the inviter client plays a song stored on his or her own device, that same song will play on the invitee device without any further user input at the invitee client device. *Id.* (¶¶ 0008, 0071, 0072). When the first song finishes, the user at the inviter client can play a second, third, or tenth song on his computer, and each of those songs will play on the invitee client without further user input at the invitee client. *Id.* (¶¶ 0092-0097). The Lee system is illustrated in demonstrative exhibits RDX-0002 and RDX-0523C. *See* RDX-0002.011-015 (RX-0460C (Almeroth DWS) Q/A 39-40); RDX-0523C.016-024 (RX0671C (Lipoff RWS) Q/A 143-47).

The Examiner determined that Lee discloses the claimed “directing” step because “Lee teaches an inviter computer communicates to an invitee computer . . . and directs the invitee computer to stream a track directly from content server.” JX-0002 (‘323 File History) (BHM-ITC-006071). In response to the Examiner’s rejection, the applicant amended the claims to include the “without user input” negative limitation. *See id.* (BHM-ITC-006083-088). Citing these amendments, the applicant distinguished the purported invention from Lee as follows:

Lee discloses that the user of the invitee computer must accept an invitation from the inviter computer before the audio experience may be shared. . . . Thus, . . . Lee requires user input via the second device prior to the initiation of a shared audio experience. In direct contrast, each of Applicant’s independent claims require that the first device direct the second device without user input via the second device.

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Id. (BHM-ITC-006080) (internal citations omitted, emphasis revised). The applicant clearly and unmistakably disclaimed systems that require user input on the second device “prior to the initiation of a shared media experience,” *i.e.*, user input at the second device that occurs during the process of establishing a communication pathway between the first and second devices, and before the “directing” steps by which each song that plays on the inviter client will be played on the invitee client. *See Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006) (“[A] patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution.”).

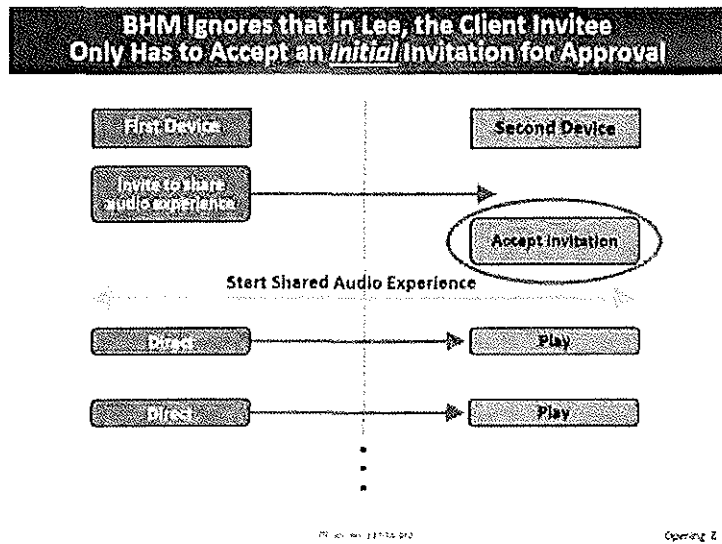
The claim construction proposed by BHM is inconsistent with the applicant’s statements to the USPTO. According to BHM, the disputed phrase means “no user input is required at the second device following direction from the first device.” As illustrated in the graphic below, however, the applicant distinguished Lee by focusing on user input at the invitee client (circled in red) that occurs before the inviter client starts directing content to be played on the invitee client device. *See* RDX-1508 (Opening Demonstrative, below); JX-0002 (’323 File History) (BHM-ITC-006080) (“Lee discloses that the user of the invitee computer must accept an invitation from the inviter computer *before* the audio experience may be shared.”) (emphasis added).

After the shared audio experience has started, the playing of a first song on the inviter client will cause a “directing” step (depicted in the demonstrative graphic below as the first blue “Direct” box on the left) that leads immediately, and without any user input, to the playing of the same song on the invitee client (depicted as the first pink “Play” box on the right). *See* RDX-1508 (Opening Demonstrative, below); RX-0047 (Lee) (¶¶0008, 0071, 0072, 0092-0097); RDX-0002.017-018 (RX-0460C (Almeroth DWS) Q/A 40); RDX-0523C.020-24 (RX-0671C

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(Lipoff RWS) Q/A 143-147). This sequence will be repeated, with each blue “Direct” box leading to a pink “Play” box, and all without user input at the invitee client. *Id.* This is the reason why the applicant distinguished Lee by focusing on the user input that occurs at the invitee client before the shared audio experience begins, *i.e.*, because the Lee system does not require any user input at the

invitee client following a direction from the inviter client to play music. *Id.* BHM’s proposed construction is not correct because it would encompass the same prior art system that the applicant distinguished during prosecution. *See* RX-0460C (Almeroth DWS) Q/A 46; RX-0671C (Lipoff RWS) Q/A 150.



The Staff has proposed a construction similar to BHM’s proposal, but concludes with the qualification “to the extent this construction reflects statements in prosecution history.” Given the applicant’s statements during prosecution, it is determined that the proposed construction advanced by Respondents and Intervenor be adopted.

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b. “directing [...] the [at least one] second device . . .” (claims 1, 16, 17, 23, 27, 30, 45)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“directing [...] the [at least one] second device”	“first device directs second device”	“the first device instructs the second device”	Plain and ordinary meaning -or- first device directs second device “Directing” – plain and ordinary meaning should be consistently applied across terms (i.e. directly issuing instructions to...) [no intermediary in this step - as shown in figure 4]

The claim term “directing [...] the [at least one] second device” appears in claims 1, 16, 17, 23, 27, 30, and 45 of the ’873 patent. As proposed by Respondents, the term is construed to mean “the first device instructs the second device,” a construction that is consistent with the intrinsic evidence and the understanding of a person having ordinary skill in the art. *See* RX-0460C (Almeroth DWS) Q/A 49-50.

The specification emphasizes that the first device, which generally assumes the functions of the control point, instructs or commands a second device to render media. JX-0003 (’873 patent) at col. 8, lns. 22-24 (“rendering devices that receive instructions from the control point”); col. 14, lns. 6-14 (first device may select a second device on the network and “command” the second device to play a song). The importance to the claimed inventions of commanding or instructing the second device is demonstrated by the prosecution history of the ’323 parent patent. During prosecution, the applicant distinguished the Lee reference on grounds that it did

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not “force” the second device (the invitee client) to play the media item directed to it by first device (the inviter client). *See* JX-0002 (‘323 File History) (BHM-ITC-006081).

BHM proposes that “directing [...] the [at least one] second device” means “first device directs second device.” This proposal mirrors the claim language, but fails to provide a meaningful definition for the disputed phrase. Yet, BHM’s expert Dr. Loy testified that in the claimed invention, “the first device can force (direct) the second device to play media without user input at the second device.” CX-1068C (Loy DWS) Q/A 71. This testimony supports the equation of “direct” with “force,” and further supports the adopted construction.

The ‘873 patent also discloses that the instructions are sent directly from the first device to the second device, without any intermediary. For example, the specification states that the first device may “directly control” the second device, and that this control may be facilitated by “either unidirectional or bi-directional communication with the second device 14.” JX-0003 (‘873 patent) at col. 15, lns. 15-16; col. 9, lns. 4-7; Figs. 1 & 4.

c. “playlist” (claims 1, 17, 23, 27, 30)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“playlist”	“a list referencing media items arranged to be played in a sequence”	“a list of media items”	“at least one song listed for playing”

The term “playlist” appears in claims 1, 17, 23, 27, and 30 of the ‘873 patent. As construed by Respondents, the term is construed to mean “a list of media items,” a construction that is supported by the intrinsic evidence.

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The specification describes a “playlist” as a list of songs that correspond to attributes such as an artist, an instrument, a record company, a region, an ethnicity, current popularity, or the listening preferences of a particular user. *See* JX-0003 (’873 patent) at col. 3, lns. 6-15; col. 3, lns. 25-31; col. 10, ln. 47 – col. 11, ln. 5; col. 11, lns. 20-24. Moreover, a “playlist is a list of songs containing at least one song that the listener would like to hear,” and the “playlist” may be “standard” or “custom.” *Id.* at col. 11, lns. 25-26; col. 10, lns. 64-67; col. 7, lns. 47-50. The specification’s use of broad terminology to define the meaning of the term “playlist” is consistent with the adopted construction.

The construction proposed by the Staff acknowledges the breadth of the term “playlist,” but limits the term to “songs” listed for playing. Not all of the claims specify that a playlist consists of songs. For example, claim 1 of the ’873 patent recites a “playlist . . . comprising a plurality of media item identifiers,” while claim 17 more specifically recites a “playlist . . . comprising a plurality of song identifiers.” *Id.* at col. 16, lns. 41-42; col. 17, lns. 45-46.

Under BHM’s proposed construction, a “playlist” is a “list referencing media items arranged to be played in a sequence.” In support of this proposed construction, BHM’s expert testified that “the meaning of the term ‘playlist’ at the time of the invention included the idea that the media items would be played in sequence.” CX-1401C (Loy RWS) Q/A 50. Yet, the ’873 patent lacks support for this position. The specification contradicts BHM’s contention that the media items “would be played in sequence” because it states that a “playlist” may be played “in the order selected, in random order, or in any other desired order.” JX-0003 (’873 patent) at col. 3, lns. 21-25; col. 11, lns. 42-44.

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d. “remote control” (claims 8, 37)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“remote control”	“a device that may be used to control a separate device”	“a device dedicated to controlling a second device”	<p>Plain and ordinary meaning - small handheld portable device* to control the second device – with functionalities disclosed in the specification</p> <p>* POSITA based understanding starts at common media device remote control</p>

The claim term “remote control” appears in claims 8 and 37 of the ’837 patent. As proposed by Respondents, the term is construed to mean “a device dedicated to controlling a second device,” a construction that is supported by the intrinsic evidence.

The ’873 patent consistently uses the term “remote control” to refer to a device that is distinct from other types of handheld devices, including phones and PDAs. For example, the specification states that “the first device 13 may comprise a handheld portable device such as a personal digital assistant (PDA), a palmtop computer, an MP3 player, a telephone, or a remote control for a music rendering device.” JX-0003 (’873 patent) at col. 9, lns. 9-12; *see also id.* at col. 9, lns. 56-60 (referring to the first device as “a PDA or dedicated remote control that can function to control the second device”). The “Summary of the Invention” section defines the claimed “first device” as preferably comprising a handheld portable device, such as “a palmtop computer, an MP3 player, or a remote control for a second device.” *Id.* at col. 2, lns. 59-62. The ’873 patent also separately claims a “first device” that comprises a “handheld portable device” (claim 2), “palmtop computer” (claim 3), “MP3 player” (claim 4), “mobile phone” (claim 5), and

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“remote control” (claim 6). Thus, the presumption of claim differentiation also supports the adopted construction. *See Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 n.3 (Fed. Cir. 2008). Based on these disclosures, one of ordinary skill would understand that the claimed “remote control” is distinct from other handheld devices, including a phone, palmtop computer, or PDA. *See RX-0460C (DWS Almeroth) Q/A 51-52.*

In addition, the '873 patent describes the “remote control” as a device that has a primary function of controlling one or more rendering devices. For example, the specification describes a “dedicated remote control that can function to control the second device.” JX-0003 ('873 patent) at col. 9, lns. 56-60. U.S. Patent No. 8,230,099, which is related to the '873 patent and names Mr. Weel as the inventor, defines “dedicated” as “indicat[ing] the primary function of a device,” meaning that “the device typically does not perform any other of the functions that a general purpose computer may perform.” *See JX-0005 ('099 patent)* at col. 8, lns. 41-51. This is consistent with the '873 patent specification, which describes a remote control as being “for” a second device that “controls a plurality of second devices” and that is preferably “dockable” or “cradled” to a second device, much like a traditional remote control. JX-0003 ('873 patent) at col. 2, ln. 65; col. 9, lns. 9-12; col. 9, lns. 27-29; col. 2, lns. 63-64; col. 9, lns. 9-12; col. 9, lns. 27-37; col. 5, lns. 25-32; col. 15, lns. 21-24.

BHM’s proposed construction is inconsistent with the specification, the claims, and the common understanding of the term “remote control” by one of ordinary skill in the art because it would encompass any device that “may be used to control a second device.” *See RX-0460C (Almeroth DWS) Q/A 51.* For example, the '873 patent identifies several examples of the “first device,” including non-portable devices such as a desktop computer, television, or stereo. JX-0003 ('873 patent) at col. 9, lns. 8-14. Applying BHM’s construction, any one of these

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examples would qualify as a “remote control” because any one of them may, for example, cause music to be played on attached speakers. This interpretation contradicts the ordinary meaning of “remote control.” *See* RX-0460C (Almeroth DWS) Q/A 51.

To the extent the Staff’s proposal defines a “remote control” as a “small handheld portable device,” the construction would render claim 2 of the ’873 patent, which defines the first device as a “handheld portable device,” the same as the claims that define the first device as a “remote control.” *See InterDigital Communications, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1324-25 (Fed. Cir. 2012) (proposed construction that would render another claim superfluous counsels strongly against that construction). The Staff’s proposed construction is correct, however, to the extent it acknowledges that one of ordinary skill would interpret the term “remote control” to mean a “common media device remote control.”

e. “song” (claims 17, 19, 22)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“song”	Plain and ordinary meaning	“audio-only content”	audio file (i.e. MP3, WAV)

The claim term “song” appears in claims 17, 19, and 22 of the ’873 patent. As proposed by Respondents, the term is construed to mean “audio-only content.” The specification of the ’873 patent demonstrates that a song is audio-only content. For example, the specification refers to music as “[a]udio content” that may be rendered on devices such as speakers or a stereo, while it refers to movies and television shows as “audio/video content” that may be rendered on devices such as televisions and monitors. *See* JX-0003 (’873 patent) at col. 8, lns. 27-31.

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BHM argues that the term song “does not need to be construed” because it “has a plain and ordinary meaning that has been understood by people for thousands of years.” *See* Compl. Br. at 58-59. BHM agrees with the adopted construction to the extent that “a song is generally composed of auditory information (lyrics and/or notes),” but nevertheless argues that “a person or [*sic*] ordinary skill in the art would understand that a song can be conveyed in many different formats,” and would not be limited to an audio-only file. *See* Compl. Reply at 43. Yet, BHM does not cite to any evidence demonstrating what an person having ordinary skill in the art would understand the term “song” to mean when considered in the context of the ’873 patent. *See* Compl. Br. at 58-59; Compl. Reply at 43.

The Staff’s proposed construction is consistent with the specification inasmuch as it explains that the format of a “song” may be an MP3 or WAV file, which are both file formats for audio-only content. JX-0003 (’873 patent) at col. 11, lns. 37-40. The specification, however, does not restrict the specific file format of the audio song to solely MP3 or WAV.

f. “device identifier[s]” (claims 1, 17, 23, 27, 30)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“device identifier[s]”	“indiciu[m]-[ia] of a device”	“[an indiciu[m]] [indicia] for uniquely identifying the second device”	“indiciu[m]-[ia] of a device”

The claim term “device identifier[s]” appears in claims 1, 17, 23, 27, and 30 of the ’873 patent. As proposed by Respondents, the term is construed to mean “[an indiciu[m]] [indicia] for uniquely identifying the second device.”

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The term “device identifier” does not appear in the specification or in the claims as originally filed before the USPTO. The applicant added limitations regarding the display and selection of a “device identifier” during prosecution of the parent ’323 patent, citing paragraph 0106 and element 45 in Figure 4 to support the amendment. *See* JX-0002 (’323 File History) (BHM-ITC-006107-113, BHM-ITC-006163). In its discussion of element 45 of Figure 4, the ’873 specification states that a second device may be selected from a list of second devices that is displayed on the first device. *See* JX-0003 (’873 patent) at col. 11, lns. 60-67. The list of second devices may be updated automatically using a device discovery process, or may be pre-configured by the user and updated manually. *See id.* at col. 4, ln. 60 – col. 5, ln. 7; col. 12, lns. 1-5. Although the specification provides no further discussion of the manual update, it describes the device discovery process in detail, stating that all devices on a network “periodically broadcast an identification code and password,” and the identification code “*uniquely* identifies the second device.” *Id.* at col. 13, lns. 1-3 (emphasis added). Accordingly, the intrinsic evidence supports the adopted construction.

By contrast, the construction proposed by BHM and Staff is overly broad, and does not take into account the applicant’s citation of element 45 of Figure 4 and paragraph 0106 of the original application as support for the “device identifier” limitation. *See id.* at col. 11, ln. 60 – col. 12, ln. 5.

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g. “receiving” / “received” / “receive” (claims 1, 16, 23, 27, 30, 45)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“receiving” / “received” / “receive”	Plain and ordinary meaning	“getting” / “got” / “get”	“Receives input” = actually receive input from user “Receive playlist” = actually receive playlist files for selection

Claims 1, 16, 23, 27, 30, and 45 of the ’873 patent use variations of the term “receive” in different contexts, including “receiving” a playlist, “receiving” user input, directing a second device to “receive” a media item, and to refer to a playlist or user input that has been “received.” The various proposed constructions for the terms “receiving” / “received” / “receive” do not appear to be materially different. These terms are therefore construed as proposed by Respondents, inasmuch as their proposal is consistent with the plain and ordinary meaning of these terms.

h. “obtaining” (claims 17, 27)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“obtaining”	Plain and ordinary meaning	“getting”	See “download” and “stream”

The claim term “obtaining” appears in claims 17 and 27 of the ’873 patent. In particular, claim 17 recites the phrase “obtaining a playlist” on a first device. The specification uses the terms “receiving” and “obtaining” interchangeably. *See* JX-0003 (’873 patent) at col. 1, lns.

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19-24; col. 2, lns. 29-40; col. 3, lns. 35-39; col. 3, lns. 41-53; col. 4, lns. 11-16; col. 5, lns. 9-23.

Therefore, the term “obtaining” is construed to mean “getting.”

i. “content server” (claims 1, 16, 19, 23, 27, 30, 45)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“content server”	“a device that can provide media, may or may not be the same server as the playlist server”	“a server on a local area network, or outside of a local area network, that is configured to facilitate serving of content and that may or may not be the same server as the playlist server”	A server storing audio files that are “obtained” “streamed” or “downloaded” [“receiving the selected song(s) from the content server and playing the selected song(s).”]

The term “content server” appears in claims 1, 16, 19, 23, 27, 30, and 45 of the ’873 patent. The term is construed to mean “a server on a local area network, or outside of a local area network, that is configured to facilitate serving of content and that may or may not be the same server as the playlist server,” which is a construction consistent with the intrinsic evidence.

According to the ’873 patent, the “content server” stores a plurality of media items, receives content selections from the “first device,” and sends the selected media item to the “second device” to be played. JX-0003 (’873 patent) at col. 2, lns. 29-40; col. 3, lns. 41-67; col. 5, lns. 8-18. The claimed “content server” may or may not be the same server as the playlist server. *Id.* at col. 4, lns. 35-40; col. 8, lns. 51-64; Fig. 1.

BHM’s proposed construction conflates the difference between a “server” and a “device.” The intrinsic evidence does not support such a broad construction. In addition, the Staff’s

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proposed construction limits the type of content stored on the content server to “audio files,” and would narrow the scope of the asserted claims that refer generally to “media items.”

4. Undisputed Claim Terms¹³

a. “network transceiver” (claims 23, 30)

The parties agree that the claim term “network transceiver,” which appears in claims 23 and 30 of the ’873 patent, should be construed to mean “a circuit or device that facilitates communication via a network.” *See* Joint List of Proposed Constructions at 20.

b. “playlist name[s]” (claim 27)

The parties agree that the claim term “playlist name[s]”, which appears in claim 27 of the ’873 patent, should be construed to mean “any indicia that are uniquely representative of a playlist. *See* Joint List of Proposed Constructions at 20.

c. “at least one attribute of a playlist corresponding to a selected playlist name” (claim 27)

The parties agree that the claim term “at least one attribute of a playlist corresponding to a selected playlist name,” which appears in claim 27 of the ’873 patent, should be construed to mean “a name, number, and/or any other identified indicative of a playlist.” *See* Joint List of Proposed Constructions at 20.

d. “stream[ing]” (claims 16, 19, 45)

The parties agree that the claim term “stream[ing],” which appears in claims 16, 19, and 45 of the ’873 patent, should be construed to mean “playing a media item in real-time as it is

¹³ Although this initial determination need only construe the disputed claim terms set forth in the Joint Outline of Issues, the parties’ proposed constructions of undisputed claim terms identified as needing construction are included here and adopted for completeness.

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received, which may include buffering the media item.” See Joint List of Proposed Constructions at 20.

**e. “user first input” / “user second input” [/ “user third input”]
(claims 1, 17, 23, 27, 30)**

The parties agree that the claim terms “user first input,” “user second input,” and “user third input,” which appear in claims 1, 17, 23, 27, and 30 of the ’873 patent, should be construed such that “first,” “second,” and “third” are used to distinguish between separate inputs, with no ordinal limitation attached to these elements. See Joint List of Proposed Constructions at 20.

f. “first device” / “second device” (all asserted claims)

The parties agree that the claim terms “first device” and “second device,” which appear in all asserted claims of the ’873 patent, should be construed to mean “the first device is distinct from the second device.” See Joint List of Proposed Constructions at 21.

D. Infringement Analysis of Samsung Accused Products

1. General Principles of Law¹⁴

a. Direct Infringement

Under 35 U.S.C. §271(a), direct infringement consists of making, using, offering to sell, or selling a patented invention without consent of the patent owner. The complainant in a section 337 investigation bears the burden of proving infringement of the asserted patent claims by a “preponderance of the evidence.” *Certain Flooring Products*, Inv. No. 337-TA-443, Comm’n Notice of Final Determination of No Violation of Section 337, 2002 WL 448690, at *59, (Mar. 22, 2002); *Enercon GmbH v. Int’l Trade Comm’n*, 151 F.3d 1376 (Fed. Cir. 1998).

¹⁴ The legal principles set forth in this section apply equally to the infringement analysis of the other patents asserted in this investigation.

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Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, *i.e.*, when the properly construed claim reads on the accused device exactly.¹⁵ *Ambil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. “Under this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997) (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 609 (1950)). “The determination of equivalence should be applied as an objective inquiry on an element-by-element basis.”¹⁶ *Id.* at 40.

“An element in the accused product is equivalent to a claim limitation if the differences between the two are insubstantial. The analysis focuses on whether the element in the accused device ‘performs substantially the same function in substantially the same way to obtain the same result’ as the claim limitation.” *AquaTex Indus. v. Techniche Solutions*, 419 F.3d 1374,

¹⁵ Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). If an accused device lacks a limitation of an independent claim, the device cannot infringe a dependent claim. See *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989).

¹⁶ “Infringement, whether literal or under the doctrine of equivalents, is a question of fact.” *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1130 (Fed. Cir. 2011).

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1382 (Fed. Cir. 2005) (quoting *Graver Tank*, 339 U.S. at 608); accord *Absolute Software*, 659 F.3d at 1139-40.¹⁷

Prosecution history estoppel can prevent a patentee from relying on the doctrine of equivalents when the patentee relinquished subject matter during the prosecution of the patent, either by amendment or argument. *AquaTex*, 419 F.3d at 1382. In particular, “[t]he doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner.” *Id.* (quoting *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005)).

b. Induced Infringement

With respect to induced infringement, section 271(b) of the Patent Act provides: “Whoever actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b). “To prevail on a claim of induced infringement, in addition to inducement by the defendant, the patentee must also show that the asserted patent was directly infringed.” *Epcon Gas Sys. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1033 (Fed. Cir. 2002). Further, “[s]ection 271(b) covers active inducement of infringement, which typically includes acts that intentionally cause, urge, encourage, or aid another to directly infringe a patent.” *Arris Group v. British Telecomms. PLC*, 639 F.3d 1368, 1379 n.13 (Fed. Cir. 2011). The Supreme Court recently held that “induced infringement under § 271(b) requires knowledge that the induced acts constitute

¹⁷ “The known interchangeability of substitutes for an element of a patent is one of the express objective factors noted by *Graver Tank* as bearing upon whether the accused device is substantially the same as the patented invention. Independent experimentation by the alleged infringer would not always reflect upon the objective question whether a person skilled in the art would have known of the interchangeability between two elements, but in many cases it would likely be probative of such knowledge.” *Warner-Jenkinson*, 520 U.S. at 36.

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patent infringement.” *Global-Tech Appliances, Inc. v. SEB S.A.*, -- U.S. --, 131 S. Ct. 2060, 2068 (2011). The Court further held: “[g]iven the long history of willful blindness[] and its wide acceptance in the Federal Judiciary, we can see no reason why the doctrine should not apply in civil lawsuits for induced patent infringement under 35 U.S.C. § 271(b).” 131 S.Ct. at 2060 (footnote omitted).

e. Contributory Infringement

As for contributory infringement, section 271(c) of the Patent Act provides: “Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.” 35 U.S.C. § 271(c).

Section 271(c) “covers both contributory infringement of system claims and method claims.” *Arris*, 639 F.3d at 1376 (footnotes omitted). To hold a component supplier liable for contributory infringement, a patent holder must show, *inter alia*, that (a) the supplier’s product was used to commit acts of direct infringement; (b) the product’s use constituted a material part of the invention; (c) the supplier knew its product was especially made or especially adapted for use in an infringement” of the patent; and (d) the product is not a staple article or commodity of commerce suitable for substantial noninfringing use. *Id.*

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2. Overview of Samsung's Technology

a. The Samsung Products at Issue

The accused products include [] mobile phones and [] tablets. RX-0671C (Lipoff RWS) Q/A 33-40. For asserted method claim 1, BHM also accuses Samsung Visual Display ("VD") products, including [] Smart TVs, Blu-ray players and home theater systems. *Id.* at Q41-47.

b. Samsung's Implementation of DLNA

As explained above, the DLNA guidelines dictate that communications between the various classes of devices use certain standardized protocols. RX-0671C (Lipoff RWS) Q/A 62, 67; RX-0676C (Cho RWS) Q/A 27. With respect to the accused products, the evidence shows that []

RX-0676C (Cho RWS) Q/A 14-16, 20. [

]. *Id.* at Q/A 16. [

]. *Id.* [

].

See id. at Q/A 18-19; RX-0671 (Lipoff RWS) Q/A 58.

i. AllShare Framework for Mobile Devices

The record evidence demonstrates that AllShare Framework is

]. RX-0671C (Lipoff RWS) Q/A

58; RX-0676C (Cho RWS) Q/A 19. [

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[RX-0671C (Lipoff RWS) Q/A 61, 65. [

] RX-0676

(Cho RWS) Q/A 50. [

] *Id.* at Q/A 52; RX-0671C (Lipoff RWS) Q/A 65-66.

ii. AllShare Library for VD Products

The evidence shows that AllShare library

RX-0671C (Lipoff RWS) Q/A 58; RX-0676C (Cho RWS) Q/A 16, 20. [

]

See RX-0671C (Lipoff RWS) Q/A 66; RDX-0523C.003 (AllShare Framework model);

RX-0676C (Cho RWS) Q/A 16. [

] *See* RX-0671C (Lipoff RWS) Q/A 64, 66; RX-0676C

(Cho RWS) Q/A 37. This use model, which eliminates the need for a controller, is known as the

DLNA “two-box model.”¹⁸ *See* RX-0671C (Lipoff RWS) Q/A 64-66; RX-0676C (Cho RWS)

¹⁸ BHM has not accused any two-box model of infringing the '873 patent.

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Q/A 33, 35. [

] RX-0676C (Cho RWS) Q/A 52.

iii. Nearby Devices

The record evidence demonstrates that Nearby Devices is [

].

RX-0671C (Lipoff RWS) Q/A 58. [

]. *Id.*

c. Samsung Link and AllShare Play for Mobile Devices

Samsung Link, also called AllShare Play, is [

].¹⁹ *See* RX-0671C (Lipoff RWS) Q/A 73-74.

[

]. *See id.*

DLNA requires that all of the relevant devices be on the same network. RX-0671C (Lipoff RWS) Q/A 62, 73. For example, applications that use [

] to implement DLNA communications generally require the controller, server, and renderer to be on the same LAN. RX-0671C (Lipoff RWS) Q/A 73. Samsung Link [

]. *See id.* The following graphic illustrates

¹⁹ [

]. RX-0671C (Lipoff RWS) Q/A 74. This is accordingly a “two-box” model involving just the VD product and a server, and BHM has not accused it of infringing the ’873 patent. *See id.*

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[] RDX-0521.008 (three-device streaming graphics); *see also* RDX-0523C.005 (Samsung Link model).

[] BHM has not accused the two-device streaming model of infringing the '873 patent. []

i. The Controller-Server Communication Path

A feature of Samsung Link is the use []

[] RX-0671C (Lipoff RWS) Q/A75. []

[] RX-0671C (Lipoff RWS) Q/A 75. []

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[] RX-0671C (Lipoff RWS) Q/A 75. [

].

ii. **The Controller-Renderer Communication Path**

Although Samsung Link uses [

].

RX-0671C (Lipoff RWS) Q/A 76. [

]. RX-0671C (Lipoff RWS) Q/A 76; *see also*

RDX-0523C.004. [

]. RX-0671C (Lipoff RWS) Q/A 76. [

]. *Id.*; *see also* RDX-0523C.004.

d. **AllShare Cast**

The evidence shows that AllShare Cast, also called Screen Mirroring, is an application that implements Samsung's technology for screen mirroring. RX-0677C (Song RWS) Q/A 11.

[

]. *Id.* at Q/A 12; RX-0671C (Lipoff RWS) Q/A 86.

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[

]. RX-0671C

(Lipoff RWS) Q/A 85-86; RX-0677C (Song RWS) Q/A 13.

Samsung mobile devices with AllShare Cast can act as a source device, and Samsung VD products with AllShare Cast can act as a sink device. RX-0677C (Song RWS) Q/A 14-15.

[

]. *Id.* at Q/A 16. [

].

Id. at Q/A 17-18. [

]. *Id.* at Q/A 18-19. [

]; *Id.*

at Q/A 17.

3. BHM's Infringement Allegations and Asserted Claims

BHM's asserts seven claims from the '873 patent, five device claims (23, 30, 34, 37, and 45) and two method claims (1 and 5) against Samsung. CX-1068C (Loy DWS) Q/A 121; *see* Order No. 50. These claims, and the allegations under each, are described in detail below.

a. Direct Infringement of Device Claims

BHM contends that Samsung mobile devices with "DLNA Functionality," "DIAL Functionality," and "Screen Mirroring Functionality" directly infringe claims 30, 34, 37, and 45 of the '873 patent. CX-1068C (Loy DWS) Q/A 121. Samsung mobile devices with "DLNA Functionality" and "DIAL Functionality" are also accused of directly infringing claim 23. *Id.* These are the only direct infringement allegations asserted against Samsung in this Investigation.

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Independent claim 30 is representative of the five asserted “device” claims:

30. A device for selecting a media item, the device comprising:
- a display for displaying at least one device identifier; and
 - a network transceiver for facilitating communication between the device and at least one second device via a network, wherein the device is configured to facilitate:
 - displaying on the device the at least one device identifier identifying the at least one second device;
 - receiving user first input selecting the at least one device identifier;
 - receiving a playlist, the playlist comprising a plurality of media item identifiers;
 - receiving user second input selecting at least one media item identifier from the playlist; and
 - directing, from the device, the at least one second device to receive the media item identified by the at least one media item identifier from a content server, without user input via the second device.

JX-0003 ('873 patent) at col. 19, lns. 35-52; *see also id.* at Fig. 4.

As discussed above with respect to claim construction, the negative claim limitation “without user input via the second device,” which appears in every asserted claim, was added during prosecution to overcome the Lee prior art reference. The inclusion of this phrase in the “device” claims raises at least two issues.

First, Respondents argue that the “without user input” negative limitation renders the claims invalid under 35 U.S.C. § 112, ¶ 1 for lack of written description. *See Samsung Br.* at 22.

Second, Respondents argue that the “without user input” phrase renders the “device” claims invalid as indefinite under 35 U.S.C. § 112, ¶ 2. *See id.* It is argued that

One of ordinary skill cannot determine whether a particular accused “device” (e.g., a mobile phone) infringes these claims without also looking at the unknown “second device” (e.g., a TV) with which the “device” may

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be used, specifically to determine whether that “second device” does or does not require any “user input.” As such, a given “device” may simultaneously infringe and not infringe the claims, depending upon the design characteristics of the “second device” that is chosen for analysis.

Id.

Samsung takes the position that “[t]here are only two ways to avoid the indefiniteness conclusion noted above.” Samsung Br. at 22. The first is if the claim phrase “directing . . . the . . . second device to receive the media item . . . without user input via the second device” is interpreted to mean that the first device issues an explicit instruction to the second device that there should be no user input at the second device. *See* RX-0671C (Lipoff RWS) Q/A 130. In that event, one could examine an accused “first device” to determine whether it is designed to send any such instruction, without needing to look at the design of the “second device” at all. *See id.* If the claim term is interpreted in this fashion, then BHM has not demonstrated infringement because it has not identified such an express instruction in Samsung’s mobile devices. *See id.* at Q/A 127-34.

According to Samsung, “[t]he other way to avoid an indefiniteness conclusion is if these purported ‘device’ claims are interpreted to be *system* claims, in which both a ‘device’ and a ‘second device’ are required.” Samsung Br. at 23 (emphasis original). If this is the correct interpretation of the limitation, then Samsung mobile devices alone cannot directly infringe these claims. Instead, what is needed for direct infringement is the combination of a Samsung mobile device and a “second device,” and BHM has not adduced evidence showing that Samsung sells, or imports, such a combination. *See* RX-0671C (Lipoff RWS) Q/A 347.

Moreover, the claims impose a number of structural limitations on the claimed “device” itself, as well as limitations on what the “device” must be configured to facilitate when

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interacting with the other two devices. The evidence shows that several of these limitations are not met in the accused Samsung mobile devices, resulting in a finding of no direct infringement of the asserted claims. The specific limitations not satisfied by the Samsung devices are discussed in further detail below.

b. Indirect Infringement of Method Claims

BHM contends that Samsung mobile devices with “DLNA Functionality” and “DIAL Functionality” indirectly infringe method claims 1 and 5 of the ’873 patent. CX-1068C (Loy DWS) Q/A 121; *see* Order No. 50. Samsung VD products are also accused of indirectly infringing method claim 1. *Id.* Method claim 1 is similar to “device” claim 30, in that the steps of the former parallel the steps that the latter requires the claimed device to be configured to facilitate. CX-1068C (Loy DWS) Q/A 198; RX-0671C (Lipoff RWS) Q/A 303. Method claim 5 depends from claim 1, requiring that the controller device “comprises a mobile phone.” JX-0003 (’873 patent) at col. 16, lns. 54-55.

4. Analysis of Direct Infringement

BHM has alleged that Samsung mobile devices with “DLNA Functionality,” “DIAL Functionality,” or “Screen Mirroring Functionality” directly infringe the asserted “device” claims of the ’873 patent. The reasons why BHM has failed to prove infringement are set forth below.

a. Samsung Mobile Devices with Samsung Link – Device Claims

The following discussion describes each of the claim limitations that are not satisfied by Samsung mobile devices with Samsung Link. Unless otherwise noted in a parenthetical in the heading, the limitations appear in every asserted “device” claim.

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i. “directing”

The evidence shows that Samsung mobile devices with Samsung Link are not configured to facilitate “directing . . . the at least one second device to receive the media item . . . from a content server.” RX-0671C (Lipoff RWS) Q/A 115-126. As discussed above, “directing . . . the second device” was construed to mean that “the first device instructs the second device,” while BHM and Staff propose that the “the first device directs the second device.” *See* RX-0671C (Lipoff RWS) Q/A 116.

The evidence adduced by Samsung shows that [

]. *See* RX-0671C (Lipoff RWS) Q/A 115-26; RX-0676C (Cho RWS) Q/A 63-66, 87-89. [

]. RX-0671C (Lipoff RWS) Q/A 119; RX-0676C (Cho RWS) Q/A 64. [

]. *See id.*

Samsung’s expert Mr. Lipoff confirmed the operation of Samsung’s VD Products by reviewing the relevant source code []. *See* RX-0671C (Lipoff RWS) Q/A 120-23; RPX-0100C (Samsung source code); RPX-0102C (Samsung source code). For example, when Samsung’s VD products [

]. *See* RX-0671C (Lipoff RWS) Q/A 119, 122; RX-0676C (Cho RWS) Q/A 88.

Accordingly, the mobile device does not “instruct” or “direct” the “second device” to receive a

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media item from a content server, as required by the "device" claims. *See* RX-0671C (Lipoff RWS) Q/A 115-26.

BHM argues that the "directing" limitation is satisfied so long as the VD product receives a Play request from a mobile device and plays the selected media content in at least one instance. *See* CX-1068C (Loy DWS) Q/A 577. BHM's argument, however, is not persuasive inasmuch as the "directing" or "instructing" step requires more than a request that is honored one time. Moreover, a showing that a request "originates" on the mobile device, or that playback on the VD product sometimes succeeds, is insufficient to prove infringement because such an interpretation is at odds with the word "directing."

ii. "without user input"

The record evidence demonstrates that Samsung mobile devices with Samsung Link are not configured to facilitate "directing . . . the at least one second device to receive the media item . . . without user input via the second device." The phrase "without user input" has been construed above to mean "without user input prior to the initiation of a shared media experience."

The evidence shows that the [

]. *See* RX-0671C (Lipoff RWS) Q/A

127-76. Specifically, when the VD product [

]. *Id.* at Q/A 67-68, 70. [

].

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See id. Mr. Cho testified that [

]. RX-0676C (Cho RWS) Q/A 61-76. [

] which indicates that the “without user input” limitation is not satisfied by Samsung mobile devices running Samsung Link.

BHM does not contest that the user [

]. BHM’s expert Dr. Loy testified regarding the

[]. *See* CX-1068C (Loy DWS) Q/A 168. Accordingly, there is no dispute that user input is required via the “second device” “prior to the initiation of a shared media experience.”

For the foregoing reasons, Samsung’s mobile devices when used in conjunction with VD products require “user input” under the adopted claim construction. Accordingly, Samsung’s mobile devices with Samsung Link do not satisfy the “without user input” limitation, and do not infringe any of the asserted “device” claims.

iii. “device identifier”

The evidence shows that the accused “device identifier” displayed on a mobile device with Samsung Link is [

]. *See* RX-0671C (Lipoff RWS) Q/A 177-91; RX-0676C

(Cho RWS) Q/A 57-60. For the same reasons discussed below with respect to the infringement analysis of products associated with the DIAL-enabled YouTube application, the friendly name does not satisfy the “device identifier” limitation.

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BHM argues that the displayed name “uniquely” identifies the device so long as the user can select one of two or more identical [] and each one has an actual correlation to a particular available VD product, or when only one VD product of any particular model is available. *See* CX-1068C (Loy DWS) Q/A 584. Yet, the actual claim language requires “displaying on the device at least one device identifier,” which is not related to what happens after the user selects one of the [] or whether the user can sometimes recognize a particular device based on the strings. *See, e.g.*, JX-003 (’873 patent) at col. 19, lns. 41-42. The evidence shows that Samsung Link does not display a unique identifier, but rather a [

]. RX-0671C (Lipoff RWS) Q/A 178-181; RX-0676C (Cho RWS) Q/A 59-60.

iv. “receiving a playlist”

The evidence shows that Samsung mobile devices with Samsung Link are not configured to facilitate “receiving a playlist, the playlist comprising a plurality of media item identifiers.” Although the parties offered differing constructions for the term “playlist,” the asserted claims require receiving a playlist at the claimed device. In order to meet its burden of proving that the accused Samsung mobile devices with Samsung Link satisfy this limitation, BHM needed to adduce evidence of what precisely is received at the mobile device, and whether or not it qualifies as a “playlist” under each of the parties’ constructions. Yet, BHM’s expert Dr. Loy did not analyze what is received at the mobile device. Dr. Loy instead testified as to what is displayed on the screen of the mobile device, rather than what is received by the device. CX-1068C (Loy DWS) Q/A 154-55, 588-90; Loy Tr. 526-529.

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Inasmuch as neither Dr. Loy nor BHM performed an analysis on what is received by the mobile device running Samsung Link, BHM has failed to prove that the “receiving a playlist” limitation is met.

v. “media item identifier[s]”

The asserted claims of the '873 patent recite three distinct limitations that use a media item identifier. First, the device must receive a “playlist comprising a plurality of media item identifiers.” *See* JX-0003 ('873 patent) at col. 19, lns. 45-46. That is, the media item identifier must be received as part of the playlist that is transmitted from the content server. Second, the device must receive “user second input selecting at least one media item identifier from the playlist.” *Id.* at col. 19, lns. 47-48. This limitation requires that the user select one of the media item identifiers that was received as part of the playlist. Third, the device must direct “the at least one second device to receive the media item identified by the at least one media item identifier from a content server.” *Id.* at col. 19, lns. 49-52. The record evidence does not show that these three limitations are satisfied.

Regarding the first limitation, Dr. Loy testified that his video evidence shows that the playlist includes media item identifiers. *See* CX-1068C (Loy DWS) Q/A 154-55. Dr. Loy’s video, however, fails to show that this limitation is satisfied because, as explained above, Dr. Loy did not analyze what is received by the mobile device running Samsung Link and whether it qualifies as a playlist. Regarding the second limitation, Dr. Loy refers to the same video to show that the user selects one of the media item identifiers received as part of the playlist. *See* CX-1068C (Loy DWS) Q/A 154-55. This evidence, however, does not show that the user has selected one of the same “media item identifiers” received as part of the alleged playlist.

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Regarding the third limitation, Dr. Loy testified that the “media item identifier” is part of the URI that the mobile device transmits to the VD product. *See id.* CX-1068C (Loy DWS) Q162-66; CDX-0002C (Loy demonstrative) at 18 (“media item identifier 2088929816”). As explained above, however, Dr. Loy has not shown that this identifier is received as part of the playlist. Dr. Loy’s own demonstrative shows that the mobile device sends the identifier “434752f1bfca04a32a3466b7feb78897” to the content server (BHM-02 PC) to obtain the media item, suggesting that the content server has assigned a media item identifier that is different than the one sent to the VD product. *See* CDX-0002C (Loy demonstrative) at 19. Therefore, the media item identifier received from the content server at the first device is not the same as the one sent from the first device to the second device as required by the claim. *See* Loy Tr. 453-454.

Accordingly, Samsung’s mobile devices with Samsung Link do not satisfy the “media item identifier” limitations.

vi. “directing . . . to receive the media item . . . from a content server”

The accused Samsung mobile devices with Samsung Link are not configured to facilitate “directing . . . the at least one second device [*i.e.*, the VD product] to receive the media item . . . from a content server.” As demonstrated by the record evidence, [

]. RX-0671C (Lipoff RWS) Q/A 76; *see also* RX-0676C (Cho RWS) Q/A 30. [

]. RX-0671C (Lipoff RWS) Q/A 76. []

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[]. Accordingly, the Samsung mobile devices with Samsung Link do not “direct[] . . . the at least one second device to receive the media item . . . from a content server” as required by the asserted claims.

vii. “receive the media item . . . from a content server”

The evidence shows that the accused Samsung mobile devices with Samsung Link are not configured to facilitate directing to “receive the media item . . . from a content server.” See RX-0671C (Lipoff RWS) Q/A 221-27. [

]. *Id.* at Q/A 76. As Mr. Lipoff testified, [

]. RX-0671C

(Lipoff RWS) Q/A 76.²⁰

Dr. Loy’s test results are consistent []. Dr. Loy testified that in his test videos the “content server” is a personal computer named “BHM-02.” CX-1068C (Loy DWS) Q/A 144; *see also* CDX-0002C (Loy packet tracing demonstrative). According to Dr. Loy, his test shows that the selected “song” was received “from the BHM-02 PC content server.” See CX-1068C (Loy DWS) Q/A 144. These test results, however, confirm that the data is actually received from the mobile device, and not from the “content server.” See RX-0671C (Lipoff RWS) Q/A 221-27; RDX-0523C.054 (Highlighted Loy evidence). Accordingly, Samsung’s mobile devices with Samsung Link do not direct the second device to “receive the media item from a content server.”

²⁰ Dr. Loy relies on deposition testimony from Ms. Hye-Jung Bang []. See CX-1068C (Loy DWS) Q/A 167.

This testimony is related to [

].

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- viii. **“to send information representative of the at least one media item named to a content server . . . and to receive a media item corresponding to the at least one media item name from the content server” (claim 23)**

BHM has failed to show that Samsung mobile devices with Samsung Link send any “direction” that satisfies the additional limitation required by claim 23. For the same reasons described with respect to the “directing . . . to receive the media item . . . from a content server” and “receive the media item . . . from a content server” limitations, Samsung mobile devices with Samsung Link do not meet the additional limitation required by claim 23.

- ix. **“remote controls” (claim 37)**

Claim 37 of the '873 patent depends from claim 36, which recites that the first device is “a remote control operative to control the second device.” *See* JX-0003 ('873 patent) at col. 20, lns. 1-2. Under the construction adopted above, a “remote control” is “a device dedicated to controlling a second device.” As discussed further below in the section relating to substantial noninfringing uses in the context of indirect infringement, the evidence shows that controlling one or more rendering devices is not the primary function of the accused Samsung’s mobile phones and tablets. Accordingly, Samsung’s mobile phones and tablets, including the Samsung mobile devices with Samsung Link, are not devices “dedicated to controlling a second device” as required by the adopted construction.

- x. **“directing . . . to stream the media item . . . from the content server” (claim 45)**

The record evidence demonstrates that Samsung mobile devices with Samsung Link do not satisfy the additional limitation recited in claim 45, *i.e.*, “directing the at least one second device to stream the media item identified by the at least one media item identifier from the content server, without user input via the second device.” Dr. Loy has not offered evidence

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showing that the Samsung Link application directs the second device “to stream the media item . . . from the content server.” Instead, Dr. Loy testified that claim 45 is infringed because the TV he tested appeared to stream content. *See* CX-1068C (Loy DWS) Q/A 178. Dr. Loy, however, did not specify what in the packet sniffing evidence he cites constitutes the direction to stream the content. *Id.* The cited evidence shows that the Samsung mobile device sends a “Play” request, without specifying whether that item should be streamed or downloaded. Therefore, Samsung mobile devices with Samsung Link do not satisfy this limitation.

b. Samsung Mobile Devices with AllShare Framework – Device Claims

BHM has alleged infringement not only by applications such as Samsung Link or AllShare Play, but also by [] such as AllShare Framework, AllShare library, and Nearby Devices.²¹ As noted above, these [

]. BHM and Dr. Loy have not identified a single application that uses AllShare Framework for all of its communications. Nevertheless, had BHM identified such an application on a Samsung mobile device, it would not infringe the asserted claims of the '873 patent.

BHM contends that Samsung’s mobile devices with “DLNA” functionality directly infringe device claims 23, 30, 34, 37, and 45 of the '873 patent. *See* CX-1068C (Loy DWS) Q/A 121 (“Mobile Devices with DLNA Functionality”). As explained above, AllShare Framework alone does not infringe the asserted claims of the '873 patent because [

]. In addition, an application that uses the AllShare Framework

²¹ In the sections that follow, “AllShare Framework” will refer collectively to “AllShare library,” “Nearby Devices,” and “AllShare Framework.”

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would not infringe any of the asserted claims of the '873 patent because it would not practice limitations of the '873 patent. *See* RX-0671C (Lipoff RWS) Q/A 228-34.

First, an application that uses AllShare Framework would not practice the “directing” limitations of claims 23, 30, and 45, or the “without user input” limitation of all claims for the same reasons that Samsung Link, [

], does not practice these limitations. *See* RX-0671C (Lipoff RWS) Q/A 127-76, 228-34; RX-0676C (Cho RWS) Q/A 67-70.

Second, the “device identifier” limitation cannot be evaluated fully without considering a specific application because particular user interface elements, [

], are required for the analysis. *See* RX-0671C (Lipoff RWS) Q/A 233.

Either of these reasons is sufficient to show that the accused Samsung mobile devices with an application that uses AllShare Framework would not infringe the asserted claims of the '873 patent.

c. Samsung Mobile Devices with AllShare Cast – Device Claims

BHM asserts that Samsung’s mobile devices with AllShare Cast directly infringe claims 30, 34, 37, and 45. CX-1401C (Loy DWS) Q/A 121; CDX-0131 (opinion summary chart). In order to prove that the claim limitations are met, BHM relies on the operation of the Google Play Music application on a Samsung mobile device running AllShare Cast. *See* CX-1401C (Loy DWS) Q/A 146; CPX-0126C (Video of Test 201) at 00:01:32; CPX-0128C (Video of Test 202) at 00:01:23. The evidence shows that the accused Samsung mobile devices running both AllShare Cast and Google Play Music do not infringe the asserted claims of the '873 patent.²²

²² BHM has not presented any evidence relating to the use of AllShare Cast with any “playlist application” other than Google Play Music, and it has therefore failed to show that the accused

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The testimony of Dr. Song and Mr. Lipoff establishes that [

] . See RX-0671C (Lipoff RWS) Q/A 275-76; RX-0677C

(Song RWS) Q/A 39. How the Google Play Music application operates is therefore irrelevant to whether Samsung mobile devices with AllShare Cast alone infringe the claims of the '873 patent. Therefore, the accused Samsung mobile devices running AllShare Cast alone, *i.e.*, not used in conjunction with Google Play Music, do not infringe the asserted claims of the '873 patent for additional reasons described below.

i. “via a network”

The evidence shows that Samsung mobile devices with AllShare Cast do not communicate with the second device “via a network” or “on a network,” as the asserted “device” claims require. Under BHM’s infringement theory, Samsung mobile devices that act as a source are the “device,” and the VD products that act as a sink are the “second device.” Therefore, to prove infringement, BHM is required to establish that the source and the sink in AllShare Cast communicate “via/on a network.”

BHM did not present evidence to establish that Samsung mobile devices with AllShare Cast meet the “via/on a network” limitations. See CX-1068C (Loy DWS) Q/A 151. The evidence that BHM’s expert Dr. Loy cites to establish this limitation is a test video that he prepared for DIAL, and not AllShare Cast. *Id.* Moreover, the uncited video evidence that Dr. Loy did prepare for AllShare Cast is silent on the “via/on a network” limitation. See *id.* at Q/A 146; CPX-0126C (Video of Test 201); CPX-0128C (Video of Test 202). In explaining his test results related to screen mirroring, Dr. Loy did not testify regarding the “via/on a network”

mobile devices with AllShare Cast used with any other “playlist application” infringe the asserted claims of the '873 patent.

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limitation. CX-1068C (Loy DWS) Q/A 146. Dr. Loy also does not offer any packet sniffing evidence related to the communications between the source and sink in AllShare Cast. *See* RX-0671C (Lipoff RWS) Q/A 251; *cf.* CX-1068C (Loy DWS) Q/A 151.

Notwithstanding BHM's failure to prove infringement, Samsung established that the source and sink in AllShare Cast do not communicate "via/on a network." *See* RX-0671C (Lipoff RWS) Q/A 243-54. As Dr. Song and Dr. Loy testified, the source and sink in AllShare Cast communicate using a WiFi Direct connection. *See* RX-0677C (Song RWS) Q/A 18; CX-1068C (Loy DWS) Q/A 60. WiFi Direct emulates an HDMI connection; two devices that are connected via WiFi Direct communicate directly to each other as if they are connected using an HDMI wire. *See* RX-0677C (Song RWS) Q/A 18-19. As in the case of any other direct wired connection, the communications between the source and sink are not routed via or on a network.²³ *See* RX-0677C (Song RWS) Q/A 18; RX-0671C (Lipoff RWS) Q/A 245-46.

Similarly, Dr. Loy's packet sniffing tests prove that the source and sink devices in AllShare Cast do not communicate "via/on a network." The packet sniffing setup tracks communications that are sent via or on a network using a network router. *See* RX-0671C (Lipoff RWS) Q/A 252; CX-1068C (Loy DWS) Q/A 96-97. The packet sniffing test results Dr. Loy has relied upon did not capture any communications between the mobile device running AllShare Cast and the TV. RX-0671C (Lipoff RWS) Q/A 251; *cf.* CX-1068C (Loy DWS) Q/A 151. The absence of any such communications is consistent with the fact that the mobile device

²³ This is the reason why screen mirroring using AllShare Cast may take place even when the two devices are not connected to a network. *See* RX-0677C (Song RWS) Q/A 18. By eliminating the need for a network connection, WiFi Direct permits the sink to mirror the screen of the source without using a WiFi network, a network router, or an Internet connection. *See id.*; RX-0671C (Lipoff RWS) Q/A 83; RDX-0522C.004 (WiFi Direct Graphic). The record evidence states that screen mirroring does not require an access point or "AP." *See* CX-0156C (WiFi Direct Technical Specification).

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communicates directly with the sink using WiFi Direct, rather than via or on a traditional network connection.

For these reasons, mobile devices with AllShare Cast do not satisfy the “via/on a network” limitations of the asserted claims.

ii. “without user input via the second device”

Samsung mobile devices with AllShare Cast are not configured to facilitate “directing . . . the at least one second device to receive the media item . . . without user input via the second device.”

As construed above, the term “without user input” means “without user input prior to the initiation of a shared media experience.” For mobile devices with AllShare Cast, the only evidence that Dr. Loy presented to establish the “without user input” limitation is a test video related to AllShare Cast. CX-1068C (DWS Loy) Q/A 162. With respect to that video, Dr. Loy testified during cross examination that omitted from the test video was the fact that he had used a remote control to put the TV into sink mode prior to the initiation of screen mirroring. Loy Tr. 376-378; *see also* CPX-0126C (Video of Test 201) at 00:01:28; CPX-0128C (Video of Test 202) at 00:01:16. Dr. Loy’s testimony is consistent with the testimony of Samsung witnesses Dr. Song and Mr. Lipoff, both of whom explained that the user has to put the Samsung VD product into sink mode before the mirrored image and/or audio can be received from the mobile device. *See* RX-0671C (Lipoff RWS) Q/A 261-74; RX-0677C (Song RWS) Q/A 20-21. Therefore, Samsung mobile devices with AllShare Cast require user “input prior to the initiation of a shared media experience” and do not satisfy this limitation of the asserted claims.

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iii. **“directing . . . to receive the media item . . . from a content server”**

The evidence shows that Samsung mobile devices with AllShare Cast are not configured to facilitate “directing . . . the at least one second device to receive the media item . . . from a content server.” After the user places the sink into “sink mode” and a “WiFi Direct” connection is established between the source and sink, [

] . See RX-0677C (Song RWS) Q/A 33-37; RX-0671C (Lipoff RWS) Q/A 258. Accordingly, the mobile device does not “direct[] . . . the at least one second device to receive the media item . . . from a content server.”

iv. **“receive the media item . . . from a content server”**

The record evidence shows that Samsung mobile devices with AllShare Cast are not configured to facilitate directing the second device to “receive the media item . . . from a content server.” Instead, the mirrored image is provided to the sink device by the mobile device itself. See RX-0671C (Lipoff RWS) Q/A 256-60. During the operation of AllShare Cast, the source and the sink are connected using a direct communication link. See RX-0677C (Song RWS) Q/A 18-19; RX-0671C (Lipoff RWS) Q/A 243-54. Through this direct communication path, [

] . See *id.* Therefore, the sink receives the mirrored image and/or audio directly from the mobile device, and not “from a content server.” Moreover, [

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[. . .]. *See* RX-0677C (Song RWS) Q/A 35. Accordingly, the mobile device does not direct the sink device to “receive the media item . . . from a content server.”

v. “media item identifier[s]”

As explained above, the asserted claims of the '873 patent recite three distinct limitations that use a media item identifier. First, the device must receive a “playlist comprising a plurality of media item identifiers.” *See* JX-0003 ('873 patent) at col. 19, lns. 45-46. That is, the media item identifier must be received as part of the playlist that is transmitted from the content server. Second, the device must receive “user second input selecting at least one media item identifier from the playlist.” *Id.* at col. 19, lns. 47-48. This limitation requires that the user select one of the media item identifiers that was received as part of the playlist. Third, the device must direct “the at least one second device to receive the media item identified by the at least one media item identifier from a content server.” *Id.* at col. 19, lns. 49-52. The record evidence does not show that these three limitations are satisfied.

Regarding the first and second limitations, Dr. Loy testified that his video evidence shows that the playlist includes media item identifiers, and that the user selects one of the media item identifiers received as part of the playlist. *See* CX-1068C (Loy DWS) Q/A 154-55. The video, however, does not show what is received at the mobile device, or whether it qualifies as a “playlist.” Moreover, the video is not sufficient to show that the user has selected one of the same “media item identifiers” received as part of the alleged playlist. Further, Dr. Loy does not identify which of the items shown in his packet tracing evidence constitutes the “media item identifier” required by the claims. *See* CX-1068C (Loy DWS) Q/A 154, 159-61. Accordingly, BHM has failed to prove that the first and second “media item identifier” limitations are practiced by the accused Samsung mobile devices with AllShare Cast.

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Regarding the third limitation, Dr. Loy points to the same video evidence to show that the device must direct “the at least one second device to receive the media item identified by the at least one media item from a content server.” *See* CX-1068C (Loy DWS) Q/A 162. Dr. Loy’s video, however, does not show whether the first device directs a second device to receive the media item identified by the media item identifier. Dr. Loy’s packet sniffing demonstrative does not include analysis relating to the “directing” limitation for “Screen Mirroring.” *See* CDX-0002C (Loy demonstrative) at 1. [

] *See* RX-0677C (Song RWS) Q/A 37. Further, [

] For these

reasons, BHM has failed to prove that this third “media item identifier” limitation is practiced by the accused Samsung mobile devices with AllShare Cast.

vi. “device identifier”

The accused “device identifiers” displayed on mobile devices with AllShare Cast is a []. *See* RX-0671C (Lipoff RWS) Q/A 239-42, 255; RX-0677C (Song RWS) Q/A 25-27; RX-0676C (Cho RWS) Q/A 57-60. For the same reasons set forth above with respect to Samsung mobile devices with Samsung Link, the [] does not satisfy the “device identifier” limitation. RX-0671C (Lipoff RWS) Q/A 178-181; RX-0676C (Cho RWS) Q/A 59-60.

vii. “remote controls” (claim 37)

For the same reasons set forth above with respect to Samsung Link, the accused Samsung mobile devices used with AllShare Cast do not satisfy the “remote control” limitation of claim 37 through its dependency on claim 36.

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viii. “wherein the device is operative to adjust a volume parameter on the second device” (claim 37)

The evidence shows that Samsung mobile devices with AllShare Cast also do not satisfy the additional limitation provided in claim 37, *i.e.*, “wherein the device is operative to adjust a volume parameter on the second device.” The AllShare Cast application [

]. *See* RX-0677C (Song RWS)

Q/A 38; RX-0671C (Lipoff RWS) Q/A 279. [

]. *See* RX-0677C (Song RWS) Q/A 38. [

].

See id. BHM’s own video testing evidence confirms that increasing the volume of the Samsung mobile device does not change the volume settings on the TV. *See* CPX-0126C (Video of Test 201) at 00:03:05; CPX-0128C (Video of Test 202) at 00:02:52. Accordingly, BHM has not shown that this claim limitation is satisfied.

ix. “directing . . . to stream the media item . . . from the content server” (claim 45)

The evidence shows that Samsung mobile devices with AllShare Cast do not satisfy the additional limitation recited in claim 45, *i.e.*, “directing the at least one second device to stream the media item identified by the at least one media item identifier from the content server, without user input via the second device.” BHM has offered no evidence that shows the accused mobile devices send such direction to the sink. As explained above, [

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[]. *See* RX-0677C (Song RWS) Q/A 37. Accordingly, Samsung mobile devices with AllShare Cast do not satisfy this limitation.

x. Samsung Mobile Devices with AllShare Cast Alone

The record evidence demonstrates that accused Samsung mobile devices running AllShare Cast alone, *i.e.*, not used in conjunction with Google Play Music, do not infringe the asserted claims of the '873 patent for two additional reasons described below.

First, the accused Samsung mobile devices with AllShare Cast alone are not configured to facilitate "receiving a playlist, the playlist comprising a plurality of media item identifiers." In order to establish that this element is met, BHM points to the operation of the Google Play Music application on a Samsung mobile device running AllShare Cast. However, AllShare Cast [

]. *See* RX-0671C (Lipoff RWS)

Q/A 275-76; RX-0677C (Song RWS) Q/A 39. Therefore, Samsung mobile devices with AllShare Cast alone do not receive a playlist or a media item identifier, and thus do not satisfy this limitation.

Second, the accused Samsung mobile devices with AllShare Cast alone are not configured to facilitate "receiving user second input selecting at least one media item identifier from the playlist." This limitation requires that the user select one of the media item identifiers that was received as part of the playlist. As explained above, AllShare Cast [

]. Therefore, Samsung mobile devices with AllShare Cast alone do not satisfy this limitation.

d. Samsung's [] Televisions

Samsung has requested that the administrative law judge determine [

].

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See Joint Outline of Issues at 6. BHM takes the position that “this is not properly an issue in the Investigation,” inasmuch as “this is not an asserted infringement claim or an accused product and, in fact, [].” See *id.* n.7. The Staff did not take a position on whether or not the administrative law judge should determine infringement of the []. See *id.*

Samsung provided evidence showing that, [] See RX-0676C (Cho RWS) Q/A 79-82; Cho Tr. 1088, 1094-1095. Samsung then [] See RX-0676C (Cho RWS) Q/A 83. [] were produced to BHM during fact discovery. Cho Tr. 1095-1097, 1098. Samsung argues that “[

]” Samsung Br. at 54. Samsung’s witness testified that [] See Cho Tr. 1110; RX-0676C (Cho RWS) Q/A 77-86. Accordingly, Samsung takes the position that “any comprehensive infringement analysis of Samsung’s VD products []” Samsung Br. at 54.

BHM had previously moved *in limine* to exclude evidence relating to the [] television. The administrative law judge denied the motion, but left open the issue of “what role, if any, [] should have in this investigation.” See Order No. 43, at 2-3 (Feb. 14, 2014). Samsung moved to admit evidence relating to [], and the administrative law judge denied the motion. See Hearing Tr. 1081-1084.

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Inasmuch as BHM maintains that neither the [] nor any other Samsung [] is an accused product in this investigation, the administrative law judge declines to make any findings regarding whether or not they infringe the asserted claims of the '873 patent.

5. Analysis of Indirect Infringement

BHM alleges that Samsung has contributed to and/or induced infringement of certain asserted claims. As discussed in further detail below, BHM has not shown that Samsung is liable for indirect infringement of the asserted claims of the '873 patent.

a. Predicate Acts of Direct Infringement

BHM has failed to adduce evidence showing direct infringement of the '873 patent by a third party, which is a necessary predicate for its indirect infringement claims. BHM has pointed to use by certain Samsung employees to prove direct infringement, but BHM has not presented any evidence that a Samsung employee has actually performed the claim elements. For example, Mr. Zatkovich cites to testimony that certain employees of SEA and STA have used Samsung Link on accused devices in the United States, but use of Samsung Link is not enough to prove direct infringement, particularly given the many noninfringing ways it can be used. *See* CX-1067C (Zatkovich DWS) Q/A 123.

BHM presented two categories of evidence relating to alleged infringement by customers: (1) user manuals, product specifications and other marketing materials and (2) []. This evidence is not sufficient to show direct infringement by customers, for it merely demonstrates that Samsung may have promoted the use of certain applications, those applications may have been used on a Samsung device in the United States. In particular, as discussed below, the accused devices and applications can be used in

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noninfringing ways. For example, for the '873 patent, Dr. Loy points to user manuals, "FAQ" guides and videos, but does not show that the evidence meets the claim elements. *See, e.g.*, CX-1068 (Loy DWS) Q/A 210-17, 221-22, 231-32. The '873 patent claims read only on a specific use of the accused device with an application, additional devices, and connections among the devices. The testimony fails to show that a customer used the accused Samsung devices in the right configuration with the necessary connections and then practiced each element. Moreover, BHM cannot establish that the accused applications and devices directly infringe prior to importation, inasmuch as the accused devices cannot be used in an infringing manner until after they are imported into the United States.

b. Knowledge and Specific Intent

To prevail in its claims of contributory infringement and inducement, BHM must prove that Samsung knew of the asserted patents and specifically intended to contribute to or induce infringement at the time of the allegedly infringing acts. The record establishes that Samsung did not have notice of the asserted patents [

]. *See* JX-0078 (Kwon Dep.) at 40. Complaints filed with the Commission and in a related district court action alone are insufficient to show the required knowledge to support an indirect infringement claim. *See, e.g., Certain Video Game Systems and Wireless Controllers and Components Thereof*, Inv. No. 337-TA-770, Comm'n Op. at 32 (Nov. 6, 2012) (where the only evidence complainant cites for a respondent's knowledge of the patent are complaints filed with the Commission and in district court, "[t]his is insufficient evidence of the required knowledge to show contributory infringement.").

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The evidence further shows that the accused devices and applications were already in the market and capable of many substantial noninfringing uses before Samsung had notice of the patents. *See* RX-0671C (Lipoff RWS) Q/A 326-28. In addition, the fact that many of the accused applications were designed by third parties, and not by Samsung, weighs against a finding that Samsung had a specific intent to induce or contribute to infringement of the asserted patents. *See, e.g.*, RX-0668C (RWS Heppe) Q/A 30.

c. Substantial Noninfringing Uses

BHM has failed to show that the accused devices and functionalities lack substantial noninfringing uses, both at the device level and at the application level, thereby forestalling a finding of indirect infringement.

If the accused devices are considered as the component at issue for the indirect infringement analysis, the record evidence demonstrates that the accused mobile devices, televisions, Blu-ray players and home theater systems are capable of many substantial noninfringing uses. The accused mobile devices are multi-use devices capable of being used to communicate, such as through a cellular communication system or network, or by accessing the Internet via a WiFi access point. *See* RX-0668C (Heppe RWS) Q/A 33. They are also capable of using hundreds, if not thousands, of different applications offered for Android devices. They can be used without a cellular or Internet connection in airplane mode as a PDA or to play music or games or watch videos. *Id.* They also can be used to make phone calls, send and receive texts and e-mails, access information, monitor health, view videos, and access productivity tools and applications. *Id.*; RX-0669C (Houh RWS) Q/A 428. Similarly, Samsung televisions can be used to watch television shows or movies. RX-0669C (Houh RWS) Q/A 429; *see also* RX-0671C (Lipoff RWS) Q/A 334-39.

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If the accused applications are treated as the component at issue for the indirect infringement analysis, the record evidence demonstrates that the applications are capable of substantial noninfringing uses. *See, e.g.,* RX-0671C (Lipoff/RWS) Q/A 340-45. BHM has accused only one small feature within applications that have multiple uses, and did not address the noninfringing uses of the accused applications. *See id.* As a result, BHM has not prevailed in its contributory infringement claim.

E. Infringement Analysis of LG Accused Products

BHM asserts that LG Mobile Devices running LG Smart Share infringe claims 1, 5, 23, 30, 34, 37, and 45 of the '873 patent, and that LG Player Devices running LG Smart Share infringe claim 1. CX-1068C (Loy/DWS) Q/A 264, 295, 299. BHM asserts that LG Mobile Devices running YouTube infringe claims 1, 5, 23, 30, 34, and 45. *Id.* BHM asserts that LG Mobile Devices running Miracast infringe claims 30, 34, 37, and 45. *Id.* BHM generally accuses LG of direct infringement with respect to the asserted device claims and indirect infringement with respect to the asserted device claims and method claims. *Id.*

1. The Accused Products

BHM accuses two categories of LG products of infringing the asserted claims of the '873 patent: (1) LG Mobile Devices; and (2) LG Player Devices. CX-1068C (Loy/DWS) Q/A 121. The accused LG Mobile Devices are LG smartphones and tablets. RX-0632C (LG App. A), 2-11. Specifically, BHM accuses [] LG smartphones and [] LG tablet of infringing the '873 patent. *Id.* Each of the LG Mobile Devices [

]. *Id.* The accused LG Player Devices are LG televisions, Blu-ray players, and home theater systems. *Id.* at 11-32. Specifically, BHM accuses [] LG televisions, [] LG Blu-ray players, and [] LG home

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theater systems of infringing the '873 patent. *Id.* The accused LG televisions [

], *Id.* at 11-27. [

]. *Id.* There is no dispute about the operations and structures of the LG Accused Products with respect to the features at issue for the '873 patent.

2. The Accused Applications

BHM alleges that LG Accused Products with LG Smart Share, YouTube, and/or Miracast (collectively, the "Accused Applications") infringe certain asserted '873 patent claims.

CX-1068C (Loy DWS) Q/A 264, 295, 299. With respect to Miracast, BHM's infringement allegation [

]. *Id.* at Q/A 242. There is no dispute about the operations and structures of the Accused Applications with respect to the features at issue for the '873 patent.

The evidence shows that, [

]. RX-0632C (LG App. A);

RX-0673C (Polish RWS) Q/A 89-90. [

]. RX-0632C (LG

App. A); RX-0673C (Polish RWS) Q/A 89. Further, [

]. RX-0673C

(Polish RWS) Q/A 91. For example, [

]. *Id.* at Q/A 91, 212; JX-0073C (J. Kim Dep.) at 143, 157. [

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RX-0673C (Polish RWS) Q/A 213; JX-0057C (R. Bobohalma Dep.) at 208-209. [

]. RX-0673C (RWS Polish) Q/A 91, 213.

a. LG Smart Share

The evidence demonstrates that LG Smart Share [

]. RX-0673C (Polish RWS) Q/A 93. For

example, [

]. *Id.* [

]. *Id.* at Q/A

94; RX-0742 ([

]). It is undisputed that, [

[

]. RX-0673C (Polish RWS) Q/A 94. There is

also no dispute that, [

]. *Id.* at Q/A 95.

b. Miracast

The evidence demonstrates that Miracast allows a user to deliver information presented on one device (*e.g.*, information displayed in an application running on the device) to another device using a peer-to-peer wireless connection. RX-0673C (Polish RWS) Q/A 97. A “source” device may therefore use Miracast to deliver the media directly to a “sink” device, such that the media may be presented on the sink device, either in addition to or alternatively to the source device. *Id.* A user may, for example, use a smartphone running Miracast to mirror a presentation displayed on the smartphone to a larger sink device, such as a large projection device, so that the presentation may be more easily delivered to a large audience. *Id.* at Q/A 98.

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In Miracast, the media presented on the sink device is received directly from the source device. RX-0673C (Polish RWS) Q/A 99. Thus, if a user streams media from a remote server (e.g., a remote music server) to a source device (e.g., a smartphone) and then delivers that media from the source device to a sink device (e.g., a television) using Miracast, the media is received by the sink device via direct communication from the local source device, and not via communication between the remote server and sink device. *Id.*

3. Representative Products

BHM argues that the operation and/or structure of the [] are representative of all [] accused LG Mobile Devices and [] accused LG Player Devices, respectively. CX-1068C (Loy DWS) Q/A 255-58. The evidence relied on by BHM's expert Dr. Loy, however, does not establish that the [] are "representative" of all LG Accused Products.

Dr. Loy's testimony does not show that the operation and/or structure of each Accused Application with respect to the relevant functionalities are the same for the [] as for the other LG Mobile Devices []. RX-0673C (Polish RWS) Q/A 126. Likewise, Dr. Loy's testimony does not establish that the operation and/or structure of each Accused Application with respect to the relevant functionalities are the same for the [] as for the LG Player Devices that []. *Id.* Specifically, Dr. Loy's testimony demonstrates that the operation and/or structure of certain aspects of the Accused Applications, including certain specific functionalities, are different based on []. CX-1068C (Loy DWS) Q/A 119. Dr. Loy cites to the testimony of LG witness []

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[

] *Id.* (citing JX-0075C (M. Kim Dep.) at 34-35). Nevertheless, as explained further below, [

] JX-0075C (M. Kim Dep.) at 34; RX-0673C (Polish RWS) Q/A 128.

Dr. Loy also testified that Respondents' production of source code is "consistent with [his] findings" regarding representative products, alleging that "[d]ifferent version[s] of code were not produced for devices with different operating systems, or any other device differences." CX-1068C (Loy DWS) Q/A 118. Yet, the record evidence shows that [

] RX-0673C (Polish RWS) Q/A 130.

BHM also relies on CX-0033C, which is a draft of a joint stipulation between LG and BHM regarding representative products, as evidence that [

] CX-1068C (Loy DWS) Q/A 118; CX-0033C (Draft Stipulation). Ignoring for now the fact that CX-0033C is a draft and that no final agreement was reached between LG and BHM, the document does not support Dr. Loy's conclusion, inasmuch as if it proves anything, it proves [

].

CX-0033C (Draft Stipulation); RX-0673C (Polish RWS) Q/A 132.

BHM also relies on a summary of Dr. Loy's packet trace analyses as evidence regarding the representative nature of LG products. CX-0039C (DLNA Trace Summary); CX-1068C (Loy

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DWS) Q/A 120. Dr. Loy, however, performed packet traces on only five of the [] LG Accused Products, including two phones, one television, one Blu-ray player, and one home theater system. CX-1068C (Loy DWS) Q/A 113, 256. Of those five, only the [] in the packet traces. CX-0039C (DLNA Trace Summary). The packet trace summary does not establish that one LG Accused Product may be viewed as representative of other products of the same type at least because it represents packet traces obtained from only three of the [] LG Accused Products. CX-0039C (DLNA Trace Summary); RX-0673C (Polish RWS) Q/A 135. With respect to LG Smart Share and Miracast, Dr. Loy's packet traces do not show that the [] has the same operation and structure as any other LG Mobile Device because Loy fails to provide packet traces for those applications on any other accused LG smartphone. RX-0673C (Polish RWS) Q/A 135. For YouTube, Dr. Loy tests the operation of the [], but fails to explain why obtaining similar packet traces for only two LG products shows that dozens of other LG products necessarily have the same operation and structure with respect to the accused functionalities. See CX-1068C (Loy DWS) Q/A 110; RX-0673C (Polish RWS) Q/A 135.

BHM also fails to establish that one LG Accused Product may be viewed as representative of other LG Accused Products of the same type because []

RX-0632C (LG App. A). For example, []
]. *Id.*

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4. Video Evidence

As evidence in support of its infringement case, BHM relies on three videos offered by Dr. Loy that allegedly depict testing of LG Smart Share, YouTube, and Miracast on the []. CX-1068C (DWS Loy) Q/A 110, 259.

These videos, however, do not show infringement of the asserted claims. RX-0673C (Polish RWS) Q/A 140. For example, Dr. Loy's videos do not show that any LG Accused Product [], as required by every asserted '873 patent claim, because they do not show []. *Id.* at Q/A 140, 149, 154. Specifically, Dr. Loy's videos do not show whether [

], *Id.* at Q/A 140. Dr. Loy's videos also do not show that [], as also required by every asserted '873 patent claim. *Id.* Further, the videos do not show that each LG Accused Product [], as required by claim 45. *Id.* at Q/A 141.

Dr. Loy's videos also fail to show the operation and structure of the LG Accused Products in the default states in which they are imported. Dr. Loy testified that he does not know what actions were performed on the Accused Products by counsel for BHM before his testing. Loy Tr. 363-367. Moreover, the videos confirm that Dr. Loy's tests do not reflect the default operation of the Accused Products. For example, [

]. RX-0673C (Polish RWS) Q/A 163; CPX-0134C. Dr. Loy testified that his videos do not show each of the actions performed with the accused products during the recording

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of the videos, including certain user inputs at the accused player devices that are relevant to BHM's proof regarding the "without user input" limitation of each asserted '873 patent claim. Loy Tr. 378-381.

5. Packet Trace Evidence

The packet trace evidence also does not prove infringement of the asserted '873 claims by the accused LG devices. Dr. Loy's packet traces likewise do not show infringement. *See, e.g.,* CX-1068C (Loy DWS) Q/A 110, 278-82; RX-0673C (Polish RWS) Q/A 138, 150-51. For example, the portions of the packet traces Dr. Loy to which cites do not establish the "directing" limitation of the asserted claims. *See id.* The packet traces show only that [

]. *See id.* Further, the packet traces do not provide sufficient context to show that each LG Accused Product [

]. *See id.*; Polish Tr. 1316-1318.

6. Direct Infringement

The evidence adduced at the hearing fails to demonstrate that the accused LG products satisfy every limitation of the asserted claims. The specific limitations not satisfied by the accused LG products are discussed in further detail below.

a. Claim 30

BHM contends that LG infringes claim 30 of the '873 patent based on the operation of LG Smart Share or Miracast on the LG Mobile Devices. The LG Accused Products that include LG Smart Share or Miracast, however, do not display or select a "device identifier," either literally or under the doctrine of equivalents, under the adopted construction of that term. As

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explained below, these products also do not “direct” a “second device to receive the media item . . . without user input via the second device,” either literally or under the doctrine of equivalents under any parties’ construction (including the construction adopted above) of “directing [. . .] the [at least one] second device . . .” or “without user input via the second device.”

i. “directing [...] the [at least one] second device ...”

The evidence demonstrates that the LG Accused Products do not “direct[] [...] the [at least one] second device ...,” as required by the asserted ’873 patent claims. As discussed above, the term “directing [...] the [at least one] second device ...” is construed to mean “the first device instructs the second device.”²⁴ The LG Accused Products with LG Smart Share or Miracast do not “direct,” “instruct,” or “directly issue instructions to” a second device in the manner claimed in the ’873 patent.

BHM alleges that the LG Accused Products with LG Smart Share “direct” a second device to receive or obtain media based on videos and packet data, whereas BHM relies only on videos in support of its allegations with respect to Miracast. *See* CX-1068C (Loy DWS) Q/A 278. As explained above, the videos and packet traces do not show that any LG Accused Product with LG Smart Share or Miracast practices this limitation. *See* RX-0673C (Polish RWS) Q/A 148-54.

At the hearing, Dr. Loy testified that one need only look at the accused (first) device to determine whether that device meets the limitations of claim 30. *See* Loy Tr. 392-393. Dr. Loy testified that “if the device is a mobile phone I only look at the mobile phone to see whether the

²⁴ BHM proposes that this term means “first device directs second device.” Staff proposes that “directing [...] the [at least one] second device ...” means “first device directs second device,” but clarifies that “directing” means “directly issuing instructions to.”

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limitations of claim 30 are met.” Loy Tr. 395-396. According to Dr. Loy, one way to determine whether the device is “directing” a second device “without user input via the second device” is by analyzing source code on the device to “see if there were actions that that source code performed that instructed . . . the second device to ask for a user input or not.” *Id.* Yet, Dr. Loy testified that he did not cite any specific portion of any LG source code in support of his opinions. *Cf.* Loy Tr. 431-432. Dr. Loy also testified that one could determine whether that device is “directing” a second device “without user input via the second device” by looking at packet traces, but [

]. *See* Loy Tr. 395-396; RX-0673C

(Polish RWS) Q/A 138, 150, 151.

In addition to videos and packet traces, BHM also relies on deposition testimony [

]. CX-1068C (Loy DWS) Q/A 283. As with the videos and packet traces, [

], as required by the ’873 patent claims.

The record evidence demonstrates that LG Mobile Devices associated with Miracast do not “direct” the LG Player Devices to receive or obtain media. *See* RX-0673C (Polish RWS) Q/A 152-54. Rather, Miracast [

]. *Id.* at Q/A 152.

Accordingly, the source does not “direct,” “instruct,” or “directly issue instructions to” the sink to cause the sink to receive media, as required by the asserted ’873 patent claims. *Id.* Rather,

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[

]. *Id.* Therefore, [

]. *Id.* Moreover, [

], as required by the plain

language of asserted independent claims 1, 23, and 30. *Id.*

In addition, BHM fails to demonstrate infringement under the doctrine of equivalents because the differences are not insubstantial. RX-0673C (Polish RWS) Q/A 152-54. Aside from Dr. Loy's statement that "[t]o the extent any limitation is not literally met, . . . it would be met under the doctrine of equivalents," BHM offers no support for its contention that the LG Accused Products associated with LG Smart Share or Miracast practice this limitation under the doctrine of equivalents. *See* CX-1068C (Loy DWS) Q/A 246. Such a position is insufficient for BHM to establish that LG infringes under the doctrine of equivalents.

ii. **"without user input via the second device"**

The evidence demonstrates that the LG Accused Products do not direct a second device to receive or obtain media "without user input via the second device," as required by each asserted '873 patent claim under all proposed constructions (including the construction adopted above). The term "without user input via the second device" was previously construed to mean "no user input is required at the second device prior to the initiation of a shared media experience." BHM and Staff propose that this term means "[n]o user input is required at the second device following direction from the first device." The record evidence shows that [

] RX-0673C (Polish RWS) Q/A 155-63. Moreover, BHM fails to establish

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that “[n]o user input is required at the second device following direction from the first device” in the LG Accused Products. *See id.* at Q/A 164.²⁵

With respect to LG Smart Share, the evidence shows that [

] RX-0673C

(Polish RWS) Q/A 156; JX-0075C (M. Kim Dep.) at 70. [

] RX-0673C (Polish RWS) Q/A 156.

At the hearing, BHM attempted to establish that Dr. Polish testified during his deposition that [

] Polish Tr. 1307-1309, 1318-1319. Dr. Polish, however, testified consistently at his deposition, in his direct witness statement, and at the hearing that [

] RX-0673C (Polish RWS) Q/A 159; Polish Tr. 1314-1315. Although Dr. Polish said in his

deposition that “[

]” he

explained at trial that [

]

²⁵ BHM’s expert Dr. Loy provided no analysis taking into account the parties’ differing proposed constructions. CX-1068C (Loy DWS) Q/A 278-87. LG’s expert Dr. Polish addresses and provides testimony with respect to the parties’ different constructions. RX-0673C (RWS Polish) Q/A 155-64.

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[

] RX-0673C (Polish RWS) Q/A 159; Polish Tr.

1314-1315.

In addition, certain LG Player Devices require [

] RX-0673C (Polish RWS) Q/A 160-62. For example, when a user attempts to share media with one of LG's Google TVs using LG Smart Share, [

] *Id.* at Q/A 161; JX-0075C (M. Kim Dep.) 75, 76; RDX-1456C (RX-0743 (Smart Share Popup)). Dr. Loy does not dispute that such

[] *See* RX-0673C (Polish RWS) Q/A 161. LG's Google TVs therefore cannot [

] *Id.*

Further, the accused LG Blu-ray players and home theater systems can [

] RX-0673C (Polish RWS) Q/A 162; JX-0075C (M. Kim Dep.) at 71, 72, 114-115. Thus, those accused LG devices do not [

] RX-0673C (Polish RWS) Q/A 162.

Similarly, with respect to Miracast, BHM does not dispute that LG Player Devices [

] RX-0673C (Polish RWS) Q/A 163. BHM also does not dispute that, with respect to the accused LG TVs that include Miracast, []

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[

]. *Id.* It is also undisputed that, in the [

]. *Id.* [

]. *Id.* With respect to the accused LG Blu-ray players and home theater systems that include Miracast, [

]. *Id.*

The “without user input via the second device” limitation of the asserted claims is not met with respect to LG Smart Share or Miracast on the LG Accused Products under the adopted construction of this claim term because [

]. RX-0673C (Polish RWS) Q/A 155-63.

BHM also fails to establish that any LG Accused Product directs or instructs another device in the manner recited in the asserted '873 patent claims under BHM and Staff's proposed construction of “without user input via the second device.” RX-0673C (Polish RWS) Q/A 164. BHM and Staff's proposed construction for this term is “[n]o user input is required at the second device following direction from the first device.” That construction requires that there be no user input following a “direction” from the first device. Inasmuch as BHM fails to show that [

].

BHM also fails to show that “without user input via the second device” is met under the doctrine of equivalents. RX-0673C (Polish RWS) Q/A 165. Aside from Dr. Loy's general statement that “[t]o the extent any limitation is not literally met, . . . it would be met under the

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doctrine of equivalents,” BHM offers no support for its contention. See CX-1068C (Loy DWS) Q/A 246. Such a position with respect to doctrine of equivalents is insufficient to establish infringement.

iii. “playlist”

The LG Accused Products do not receive a “playlist,” as required by each asserted ’873 patent claim, under BHM’s proposed construction of “playlist,” which requires “a list referencing media items arranged to be played in a sequence.” BHM has offered no evidence that the LG Accused Products with LG Smart Share or Miracast receive media items that are “arranged to be played in a sequence.”

BHM alleges that the LG Accused Products with LG Smart Share or Miracast [

]. CX-1068C (Loy DWS) Q/A 271, 588-90. For

example, in his direct witness statement, Dr. Loy stated: “[

].” *Id.* at Q/A 590. At the hearing, however, when

cross-examined about “shuffle” playback, Dr. Loy testified that [

]. Loy Tr. 475 (“[

].”). This

testimony is consistent with the testimony of experts Dr. Polish and Dr. Almeroth, who both testified that [

]. Almeroth Tr. 625-627 (“[

].”); Polish Tr. 1316 (“[

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].”).

BHM also relies on packet traces to support its position that the LG Accused Products receive a “playlist.” While the packet traces show that the [

]. Thus, BHM fails to establish that the LG Accused Products receive a “playlist,” under its proposed construction.

BHM also fails to demonstrate that the “playlist” limitation is met under the doctrine of equivalents. RX-0673C (Polish RWS) Q/A 165. Aside from Dr. Loy’s general testimony that “[t]o the extent any limitation is not literally met, . . . it would be met under the doctrine of equivalents,” BHM offers no support for its contention that the LG Accused Products associated with LG Smart Share or Miracast meet this limitation under that doctrine. *See* CX-1068C (Loy DWS) Q/A 246. Such a position is insufficient for BHM to establish that LG infringes under the doctrine of equivalents.

iv. “device identifier[s]”

The LG Accused Products do not display or select “device identifier[s]” under the adopted claim construction. Under that construction, the asserted ’873 patent claims require that a “device identifier” “uniquely identif[ies] the second device,” and the LG Accused Products with LG Smart Share or Miracast do not display or select such indicia.

BHM alleges that the LG Accused Products with LG Smart Share or Miracast display and select “device identifier[s]” based on videos that [

]. *See*

CX-1068C (Loy DWS) Q/A 269. [

]

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under the adopted construction, however, because [

]. *See*

RX-0673C (Polish RWS) Q/A 144-47. These characteristics [

]. *Id.* at Q/A 144.

Dr. Loy mischaracterizes LG's argument regarding this limitation as applying only to those instances in which "[

]. *See*

CX-1068C (Loy DWS) Q/A 584; RX-0673C (Polish RWS) Q/A 145. Inasmuch as the listing of devices displayed in LG Smart Share and Miracast [

]. *Id.*

BHM also fails to demonstrate that the "device identifier[s]" limitation is satisfied under the doctrine of equivalents. RX-0673C (Polish RWS) Q/A 147. Aside from Dr. Loy's general testimony that "[t]o the extent any limitation is not literally met, . . . it would be met under the doctrine of equivalents," BHM offers no support for its contention that the LG Accused Products associated with LG Smart Share or Miracast meet this limitation under that doctrine. *See* CX-1068C (Loy DWS) Q/A 246. Such a position is insufficient for BHM to establish that LG infringes under the doctrine of equivalents.

b. Claim 34

The LG Mobile Devices with LG Smart Share or Miracast do not infringe claim 34 under any claim construction (including the adopted construction), either literally or under the doctrine of equivalents, for at least the same reasons that they do not infringe independent claim 30.

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Claim 34 further recites that “the device comprises a mobile phone.” The accused LG tablet is not and does not comprise a mobile phone. RX-0673C (Polish RWS) Q/A 167. The accused LG tablet thus does not infringe claim 34 for this additional reason.²⁶

c. Claim 37

The LG Mobile Devices with LG Smart Share or Miracast do not infringe claim 37 under any proposed claim construction (including the adopted construction), either literally or under the doctrine of equivalents, for the same reasons they do not infringe independent claim 30. Further, claim 37 depends from claim 36, which recites that “the device comprises a remote control operative to control the at least one second device.” Under the adopted construction, the “remote control” claimed in the ’873 patent is “a device dedicated to controlling a second device.” *See* RX-0673C (Polish RWS) Q/A 50-54. Under that construction, none of the LG Mobile Devices is a “remote control,” either literally or under the doctrine of equivalents. *See id.* at Q/A 170-71.

One of ordinary skill would consider a device [] RX-0673C (Polish RWS) Q/A 171. For example, JX-0005 (’099 patent), which is related to the ’873 patent, defines “dedicated” as “indicat[ing] the primary function of a device.” JX-0005 (’099 patent) at col. 8, lns. 41-51. []

RX-0673C (Polish RWS) Q/A 171. Rather, [] *Id.*

²⁶ BHM states that “The ‘mobile phone’ limitation is not asserted against Respondents’ tablets.” Compl. Br. at 95.

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BHM fails to demonstrate that the “remote control” limitation is satisfied under the doctrine of equivalents. RX-0673C (Polish RWS) Q/A 110, 165. Dr. Loy states that “using smart phones and tablets as remote controls is after-arising technology whose use in this context makes an insubstantial difference in the patented invention.” CX-1068C (Loy DWS) Q/A 289. Dr. Loy, however, fails to explain why the use of smart phones and tablets as “remote controls” is an insubstantial difference to the claimed invention. Such a position with respect to doctrine of equivalents does not establish that LG infringes under that doctrine.

d. Claim 45

LG Mobile Devices with LG Smart Share or Miracast do not infringe dependent claim 45 under any claim construction for the same reasons they do not infringe independent claim 30.

e. Claim 23

BHM accuses LG Smart Share on LG Mobile Devices of infringing claim 23 based on the same proof it relies on for claim 30. CX-1068C (Loy DWS) Q/A 292. For the reasons discussed above with respect to claim 30, the LG Mobile Devices with Smart Share do not meet the “device identifier,” “playlist,” “directing,” or “without user input” limitations of claim 23. RX-0673C (Polish RWS) Q/A 176.

f. Claim 1

BHM accuses LG Smart Share on LG Mobile Devices and LG Player Devices of infringing claim 1 based on the same proof it relies on for claim 30. CX-1068C (Loy DWS) Q/A 304. For the reasons discussed above with respect to claim 30, the LG Mobile Devices and LG Player Devices with Smart Share do not meet the “device identifier,” “playlist,” “directing,” or “without user input” limitations of claim 1. RX-0673C (Polish RWS) Q/A 178.

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g. Claim 5

LG Mobile Devices with LG Smart Share do not infringe claim 5 under any construction for the same reasons they do not infringe independent claim 1. Claim 5 further recites that “the first device comprises a mobile phone.” The accused LG tablet is and does not comprise a mobile phone. RX-0673C (Polish RWS) Q/A 181. The accused LG tablet therefore does not infringe claim 5 for this additional reason.²⁷

7. Indirect Infringement

BHM contends that LG indirectly infringes claims 1, 5, 23, 30, 34, 37, and 45 of the ’873 patent. *See* CX-1068C (Loy DWS) Q/A 121, 299.

a. Underlying Direct Infringement

In order to prove indirect infringement, BHM must point to specific instances of direct infringement or show that the accused LG products necessarily infringe. *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm’n Op. at 32, 36 (Aug. 9, 2013). If evidence of specific instances of direct infringement is not provided, circumstantial evidence may be used to prove indirect infringement, but only “when the evidence shows that the accused products were intended to be used only to practice the infringing method and that method was explicitly taught, for example, by product manuals.” *Id.* at 33, 36. Yet, “excerpts from user manuals as evidence of underlying direct infringement by third parties of products that can be used in a non-infringing manner are by themselves insufficient to show the predicate acts necessary for inducement of infringement.” *Mirror Worlds, LLC v. Apple, Inc.*, 692 F.3d 1351, 1360-62 (Fed. Cir. 2012).

²⁷ BHM states that “The ‘mobile phone’ limitation is not asserted against Respondents’ tablets.” Compl. Br. at 95.

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BHM argues that the asserted patents are directly infringed by its own experts, LG's employees and agents, and end users. As explained in more detail elsewhere within this initial determination, however, LG cannot indirectly infringe based on the activities of BHM's experts or LG's employees and agents. With respect to end users, BHM does not present evidence of any specific instance of an end user performing each element of any asserted claim. BHM instead offers evidence of [

], at least because BHM has not established that the LG Accused Products necessarily infringe the asserted '873 patent claims. *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 58-59 (holding that Complainant failed to show specific instances of infringement based on user manuals that only instructed users on general usage of accused products).

In addition to product manuals, Dr. Loy points to several other documents as evidence establishing direct infringement by an LG Accused Product. For LG Smart Share, Dr. Loy also relies on CX-1298 and CX-0348C, which are a [

], respectively. CX-1068C (Loy DWS) Q/A 318-19. CX-1298 fails to show that any limitation of any of the asserted claims is satisfied, and CX-1298 fails to show that []. RX-0673C (Polish RWS) Q/A 207. Moreover, the portion of CX-0348C on which Dr. Loy relies indicates only that [

] See CX-0348C ([]). Dr. Loy contends that this would directly infringe the asserted claims "when done via a mobile device, but nothing in []

See CX-1068C (Loy DWS) Q/A 319; RX-0673C (Polish RWS) Q/A 207.

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For YouTube, Dr. Loy relies on CX-1305, CX-1306, CX-1245C, and CX-1247.

CX-1068C (Loy DWS) Q/A 329-34. [

]. See CX-1305 ([] at (3); RX-0673C (Polish RWS) Q/A 208. [

]. See CX-1068C (Loy DWS) Q/A 330-31; RX-0673C (Polish RWS) Q/A 208. [

]. See CX-1068C (Loy DWS) Q/A 333-34; RX-0673C (Polish RWS) Q/A 208.

BHM also contends that LG directly infringes the device claims of the '873 patent (*i.e.*, claims 23, 30, 34, 37, and 45) based on the importation of LG Mobile Devices that include the Accused Applications. CX-1068C (Loy DWS) Q/A 121, 296. As discussed above, however, BHM fails to establish that [

]. Moreover, as explained in detail above, the LG Mobile Devices do not contain functionalities that infringe the asserted '873 patent claims. Thus, importation of those devices does not infringe the asserted claims.

Inasmuch as BHM does not show direct infringement of any asserted claim, either by direct or circumstantial evidence, BHM has fails to prove indirect infringement by LG.

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b. Inducement

BHM contends that LG induces infringement of claim 1 based on the operation of LG Smart Share on LG Player Devices; claims 1, 5, 23, 30, 34, 37, and 45 based on LG Smart Share on LG Mobile Devices; and claims 1, 5, 23, 30, 34, and 45 based on YouTube on LG Mobile Devices.²⁸ CX-1068C (Loy DWS) Q/A 121, 312, 327. BHM fails to establish that LG induces infringement of any of the asserted '873 patent claims.

Induced infringement requires a showing that the accused inducer acts with knowledge that the induced acts constitute patent infringement. *See Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068 (2011). BHM provides no evidence establishing that LG [

]. *See Lucent Techs. Inc. v. Gateway, Inc.*, 509 F. Supp. 2d 912, 930-31 (S.D. Cal. 2007) (finding insufficient evidence to demonstrate that defendant knew or should have known that accused software infringed because software was provided in binary code (machine code) from third party).

²⁸ BHM lists both method and device claims as “Indirectly Infringed” in a demonstrative entitled “Summary of '873 Claims Infringed by LG.” *See* CDX-0131 (Summary of Infringement Allegations). The narrative portions of Dr. Loy’s direct witness statement, however, only accuse LG of inducing infringement of the asserted method claims, and not the asserted device claims. CX-1068C (Loy DWS) Q/A 312, 327. Moreover, BHM does not contend that LG induces infringement based on Miracast.

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BHM also provides no evidence establishing that LG possessed specific intent to encourage another's infringement. BHM instead points to [

]. For example, Dr. Loy identifies LG manuals (CX-0326, CX-0279) and advertisements (CX-1270, CX-1250), a web site printout (CX-0273), and an instruction presented on an LG TV (CX-1304) in support of his opinion that LG encourages users to infringe. CX-1068C (Loy DWS) Q/A 315, 323. As an initial matter, Dr. Loy fails to identify the portions of the LG manuals that he contends induce end users to infringe the asserted '873 patent claims. *See* CX-1068C (Loy DWS) Q/A 315, 323, 323. In any event, none of the cited evidence establishes that LG encourages users to infringe the asserted '873 patent claims. *See* RX-0673C (Polish RWS) Q/A 214-19.

For example, Dr. Loy states that CX-0279 "instructs users to utilize a smartphone to direct media located on a separate content server to be played back at the renderer." CX-1068C (Loy DWS) Q/A 323. However, CX-0279 merely states that the "Network Play" function "allows you to control the playback of media streamed from DLNA media server by a DLNA certified smart phone," which would not necessarily involve "direct[ing] media located on a separate content server to be played back at the renderer" when LG Smart Share is operated in the "two-box" model of DLNA, such that the phone is both the controller and the server. *See* CX-0279 (Owner's Manual - LG Blu-ray), (26-27); RX-0673C (Polish RWS) Q/A 216. CX-1270C and CX-1250 are specification sheets for the LG Intuition and LG Spirit 4G smart phones that list "SmartShare" as a feature under the "Entertainment" category. *See* CX-1250 (LG Spirit 4G Spec Sheet) at 1; CX-1270C ([]); RX-0673C (Polish RWS) Q/A 217. Dr. Loy characterizes CX-0273 as "a printout of an LG website instructing users how

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to set up a DLNA server and use it to infringe the method claims of the Weel patent by using a controller to push content from a server to a renderer,” but CX-0273 only explains how to set up an LG TV to access DLNA servers on a network. See CX-1068C (Loy DWS) Q/A 323; CX-0273 (LG DLNA Setup), (2-4). It does not explain how to “us[e] a controller to push content from a server to a renderer.” See RX-0673C (Polish RWS) Q/A 218. In addition, CX-1304 at most encourages a user to “execute [the] SmartShare app,” which would not necessarily result in functionalities alleged to infringe the asserted ’873 patent claims, at least because LG Smart Share has substantial non-infringing uses (e.g., use in the “two-box” model of DLNA). See CX-1304 (Smart Share Connecting Guide); RX-0673C (Polish RWS) Q/A 219.

In support of his inducement opinions with respect to YouTube, Dr. Loy relies on CX-1306, which is a screen capture of an LG smartphone showing a “DIAL prompt” that Dr. Loy suggests “shows the user how to use DIAL to infringe the accused methods of the Weel patent.” CX-1068C (Loy DWS) Q/A 330, 337. Dr. Loy does not show, however, that interacting with the “DIAL prompt” will result in the display and selection of a “device identifier,” the receipt of a playlist, the selection of a media item, or the LG Mobile Device directing the TV to receive a selected media item from a content server. RX-0673C (Polish RWS) Q/A 221.

The documents relied upon by BHM are thus insufficient to show the specific intent required for inducement. *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1329 n.2 (Fed. Cir. 2009) (“The question is not . . . whether a user following the [allegedly inducing] instructions may end up using the device in an infringing way. Rather, it is whether [the allegedly inducing] instructions teach an infringing use of the device such that [a court may] infer from those instructions an affirmative intent to infringe the patent.”). This is especially true

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given the numerous substantial noninfringing uses of the LG Accused Products discussed below. *See Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1365 (Fed. Cir. 2003) (“Especially where a product has substantial noninfringing uses, intent to induce infringement cannot be inferred even when the defendant has actual knowledge that some users of its product may be infringing the patent.”).

c. Contributory Infringement

BHM contends that LG contributes to the infringement of claim 1 based on LG Smart Share on LG Player Devices; claims 1, 5, 23, 30, 34, 37, and 45 based on LG Smart Share on LG Mobile Devices; and claims 1, 5, 23, 30, 34, and 45 based on the YouTube on LG Mobile Devices.²⁹ CX-1068C (Loy DWS) Q/A 121, 312, 327. BHM fails to establish that LG contributes to infringement of any of the asserted ’873 patent claims.

To prevail on a claim of contributory infringement, BHM must show: (1) there is an act of direct infringement; (2) the accused device has no substantial noninfringing uses; (3) the accused infringer imported, sold for importation, or sold after importation within the United States, the accused components that contributed to another’s direct infringement; and (4) the alleged infringer knew “that the combination for which his component was especially designed was both patented and infringing.” *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm’n Op. at 41; *Spanston, Inc. v. Int’l Trade Comm’n*, 629 F.3d 1331, 1353 (Fed. Cir. 2010).

²⁹ BHM lists both method and device claims as “Indirectly Infringed” in a demonstrative entitled “Summary of ’873 Claims Infringed by LG.” *See* CDX-0131 (Summary of Infringement Allegations). The narrative portions of Dr. Loy’s direct witness statement, however, only accuse LG of contributing to infringement of the asserted method claims, and not the asserted device claims. CX-1068C (Loy DWS) Q/A 312, 327. Moreover, BHM does not contend that LG contributes to infringement based on Miracast.

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As discussed above, BHM does not show a single act of direct infringement. In addition, BHM fails to show that LG has the requisite knowledge for induced infringement and that LG knew the LG Accused Products and/or the Accused Applications were especially designed for use in infringement of the '873 patent. Rather, the evidence cited by BHM shows many substantial noninfringing uses of the LG Accused Products with the Accused Applications.

Further, [

].

BHM has also fails to meet its burden to prove “that a component that is a material part of the invention lacks substantial noninfringing use.” *Electronic Digital Media Devices*, Comm’n Op. at 44. As discussed elsewhere, BHM does not identify the component that should be analyzed for purposes of determining the existence of substantial noninfringing uses. For example, Dr. Loy states: “I believe the portion of the code on LG’s mobile devices and player devices relating to the playback of music and the portion of the code on Respondent’s mobile and player devices relating to the playback of video files from a remote source to a playback device via a mobile device during playlist use (e.g., DLNA related code) is specially adapted to infringe the asserted claims, with no substantial non-infringing use.” CX-1068C (Loy DWS) Q/A 326. However, Dr. Loy does not identify the “DLNA related” source code on which he relies for his contributory infringement analysis by file, function, or line number. RX-0673C (Polish RWS) Q/A 228. Indeed, Dr. Loy does not cite to any specific source code for LG Smart Share in his direct witness statement. *Id.*

BHM’s infringement allegations make clear that the relevant component is the full device to which BHM’s allegations are drawn, *i.e.*, the accused LG products. The evidence shows that

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the LG Accused Products are capable of substantial noninfringing uses. *See* RX-0673C (Polish RWS) Q/A 229-30. For example, the LG Mobile Devices may be used to send and receive email, browse the Internet, obtain directions, read books, or perform other activities unrelated to playing media content on an additional, separate screen. *Id.* at Q/A 230. The accused LG televisions may be used to watch broadcast or cable television programming or to operate numerous applications that do not involve playing media content on an additional, separate screen. *Id.* The accused LG Blu-ray players and home theater systems may be used, for example, to watch a movie stored on a Blu-ray disc or to listen to music stored on an audio CD in a manner that would not involve playing media content on an additional, separate screen. *Id.*

In addition to the substantial noninfringing uses of the LG Accused Products generally, there are also substantial noninfringing uses specific to the LG Smart Share application. *See* RX-0673C (Polish RWS) Q/A 229. For example, a user of an LG Accused Product with LG Smart Share may [] *Id.*

Inasmuch as [] *Id.* Further, a user of an LG Accused Product with LG Smart Share may []

[] *Id.* Thus, the LG Accused Product would not [] *Id.*

Therefore, it has been shown that the LG Accused Products and Accused Applications have substantial noninfringing uses, defeating BHM's allegations of contributory infringement as a matter of law. *See Certain Gaming & Entertainment Consoles, Related Software, & Components Thereof*, Inv. No. 337-TA-752, Initial Remand Determination at 32-33 (Mar. 22,

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2013) (finding no contributory infringement because the accused products had substantial noninfringing uses).

F. Infringement Analysis of Toshiba Accused Products

BHM asserts only method claim 1 of the '873 patent against Toshiba TVs and Blu-ray players ("Player Devices") having the Toshiba Media Share application. BHM's infringement theory regarding method claim 1 as to Toshiba's TVs and Blu-ray players is limited to indirect infringement. *See* CX-1068C.0037 (Loy DWS) (citing CDX-0131).

BHM also accuses certain Toshiba tablets ("Mobile Devices") having either the Toshiba Media Player or YouTube applications of indirectly infringing asserted method claim 1. BHM further accuses these Mobile Devices of directly and indirectly infringing system claims 23, 30, 37³⁰ and 45 of the '873 patent. *See* CX-1068C.0037 (Loy DWS) (citing CDX-0131).

For the reasons set forth below, as well as those set forth in the section relating to DIAL-enabled YouTube, no accused Toshiba product infringes the '873 patent, either directly or indirectly.

1. Direct Infringement of System Claims at the Time of Importation

According to the language of the claims and the prosecution history, asserted system claims 23, 30, 37 and 45 of the '873 patent require at least two separate and distinct devices, *i.e.*, a first "device" and a "second device." BHM has alleged that Toshiba's tablets are the first "device," while referencing Toshiba's TVs and Blu-ray players as the claimed "second device." CX-1068C (Loy DWS) Q/A 361; CPX-0107 (DLNA Test 007). Consistent with this allegation, BHM's expert Dr. Loy testified at deposition that all of the claims of the '873 patent were "three

³⁰ BHM does not assert claim 37 against the YouTube application; claim 37 is asserted only against Toshiba Media Player on the accused Mobile Devices. CDX-0131 (Summary of '873 Infringement Allegations Against Toshiba).

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device claims,” referring to a server, a “first device” and a “second device.” Loy Tr. 382-383 (discussing Loy Dep. Tr. (Dec. 13, 2013) at 292:11-293:6 (“So here let me just say it, which is basically, yes, seems to me that the Weel patents are what, I guess, we could describe as three-device patents, or three-device systems in – in kind of a loose way of characterizing it.”)). Nevertheless, Dr. Loy testified at the hearing that asserted claims 23, 30, 37 and 45 of the ’873 patent are “single device” claims. Notwithstanding the conflicting testimony, the accused Toshiba tablets do not meet each and every limitation of the asserted system claims even if these claims are considered “single device” claims.

BHM does not allege that a single Toshiba tablet is both the claimed “first device” and “second device.” RX-0667C (Goldberg RWS) Q/A 231-234; CX-1068C (Loy DWS) Q/A 361-362; CPX-0107; CDX-0016C.³¹ Therefore, inasmuch as asserted claims 23, 30, 37 and 43 are system claims requiring a “first device” and “second device,” no single Toshiba tablet can meet every recited limitation of those claims by itself. There is no dispute that Toshiba does not import or sell its tablet devices along with a player device (*i.e.*, “second device”) as a bundled system. Toshiba also does not control whether a user or any other third party combines an accused Toshiba tablet with a “second device,” or whether that “second device” is properly configured to operate with a Toshiba tablet in the manner required by the claims. Therefore, Toshiba does not directly infringe the asserted system claims. Further, inasmuch as the accused tablet does not satisfy all limitations of the asserted system claims, it is not an article that infringes at the time of importation.

³¹ Dr. Loy testified that Toshiba Mobile Devices are the “first device,” and not the “second device.” CX-1068C (Loy DWS) Q/A 361-362; CPX-0107; CDX-0016C.

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Even if the asserted system claims require only a single device, BHM has failed to show that, at the time of their importation, the accused tablets themselves are “configured to” operate in the manner alleged to infringe. RX-0667C (Goldberg RWS) Q/A 359-370; RX-0779C (Goldberg RWS errata) 4. Additionally, even if they were so configured, the accused tablets do not meet the requirements for a device configured to facilitate “receiving a playlist” and “directing . . . without user input,” and therefore do not infringe any asserted system claim.

a. “device” and “second device”

Asserted claims 23, 30, 37, and 45 of the '873 patent each require “a device” that is “configured to” facilitate performance of a number of steps. While these claims recite a “device” that is configured to operate in a particular manner, more than one of the limitations of the asserted claims cannot be performed without the recited “second device.”

BHM’s expert, Dr. Loy, has indicated that a “second device” is a required structural element of asserted claims 23, 30, 37, and 45. For example, Dr. Loy testified that multiple devices, including a “device” and a separate “second device,” are required to show infringement of method claim 1 of the '873 patent. Loy Tr. 382-383; CDX-0016C; CPX-0107 (DLNA Test 007). Dr. Loy relies on the same evidence, *i.e.*, testing with both a first device and a second device, to support his contention that claims 23, 30, 37, and 45 of the '873 patent are infringed. *See, e.g.*, CX-1068C (Loy DWS) Q/A 365-380, 394-400. For example, Dr. Loy testified:

Q396. What is the basis for your opinion regarding claims 1, 8 and 16?
A. Method claims 1, 8 and 16 are very similar to the device claims 30, 37 and 45 that I have previously discussed. Consequently, the evidence upon which I have based my opinions that the limitations of these claims are met is also very similar. The method claims do not include the limitations of “a display for displaying at least one device identifier” and “a network transceiver for facilitating communication between the device and at least one second device on a network,” but, aside from those differences, the

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other minor differences in claim language between the device and method claims do not change the proofs upon which I rely for my opinion.

Because of the similarity between the claims, as shown in the demonstrative, the proof on which I rely for my opinion that the five limitations of claim 1 are met by the Accused Products is the same proof on which I relied to prove infringement of the corresponding limitations in claim 30, that I detailed in my previous testimony.

Id. at Q/A 396, 400.

The evidence shows that the accused Toshiba tablets are single devices. Toshiba does not import or sell any accused “first device” (*i.e.*, tablet) in combination with any accused “second device.” *See* RX-0684C (Okumura RWS) Q/A 16; RX-0685C (Ramirez RWS) Q/A 21. Without the Player Device (*i.e.*, the alleged claimed “second device”), the required “system” of claims 23, 30, 37, and 45 of the ’873 system claims is incomplete. In particular, out of the box, the tablets are missing key structural components of the claimed system, *i.e.*, a “second device.” Additionally, the tablets are not configured to perform the accused DLNA and DIAL functionality until the accused tablets are at least combined and connected to the same active network as a “second device,” connected to a “content server” (*e.g.*, a PC), and properly configured to perform the accused DLNA and DIAL operation (including at the “second device,” which must itself be properly configured) in conjunction with a server that has also been configured for file sharing. *See, e.g.*, RDX-751. Without the second device, the active network and a server with file sharing enabled, the tablet will never display a “device identifier,” receive “first input selecting a device identifier,” or “direct[] ... the at least one second device ... to receive the media item ... from the content server ... without user input via the second device.” Therefore, the single tablet, as imported, is not configured to meet the limitations of the system claims and does not directly infringe the asserted system claims at the time of importation.

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b. Toshiba Mobile Devices with Toshiba Media Player

The only Toshiba Media Player functionality BHM accuses of infringing system claims 23, 30, 37, and 45 is the three-box DLNA setup described in RDX-740 and RDX-741, wherein the accused Toshiba tablet (controller) is connected to a Toshiba TV (player) and a PC (source/server) through an active wireless network. *See* RX-0667C (Goldberg RWS) Q/A 222, 232. Configuration of the accused Toshiba products is required before this three-box DLNA setup can be used; the accused Toshiba products are not capable of this operation as imported. *See* RX-0667C (Goldberg RWS) Q/A 248-252; RX-0684C (Okumura RWS) Q/A 32, 53; RX-0685C (Ramirez RWS) Q/A 75-79. Unless the Media Renderer feature on the Toshiba TV is enabled by a user, the accused tablets cannot perform the accused DLNA functionality because there is no “second device” available to communicate with in the manner alleged to infringe. Unless the media renderer feature is turned on, the Toshiba Media Player application will not display the accused device identifier and accordingly never allow a user to select it as required by the '873 claims. *RX-0667C (Goldberg RWS) Q/A 248-52, 256, 265, 270.*

i. “wherein the device is configured to facilitate: . . . receiving a playlist via the network transceiver”

BHM has not provided evidence showing that the accused Toshiba tablets, as imported, are configured to receive an alleged “playlist.” In order for the accused Toshiba tablets to be “configured to” receive a playlist in the manner accused, the user must at least: (1) configure the tablet to set up an active internet connection, (2) configure a PC or other media server to share media over a wireless network (*i.e.*, “file sharing”), and (3) configure the tablet to connect to the media server. *RX-0684C (Okumura WS) Q/A 137; RX-0667C (Goldberg RWS) Q/A 248; RX-751; CPX-0107 (DLNA Test 007).* The accused Toshiba tablet will not receive an alleged

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“playlist” if the server to which it connects does not have a playlist stored in the accessed folder, *e.g.*, if the folder only has one song in it, no “playlist” will be received. RX-0667C (Goldberg RWS) Q/A 269. If this configuration process is not performed, the Toshiba tablet is never “configured to . . . receive a playlist” from a media server as required by the asserted claims.

- ii. **“directing the . . . second device to send information . . . to a content server without user input via the second device” / “directing . . . the . . . second device to receive the media item . . . without user input via the second device”**

BHM has not adduced evidence showing that the DLNA operation alleged to satisfy the “directing” limitation, *i.e.*, the “SetAVTransportURI” instruction, actually directs the receiving device (*i.e.*, the “second device”) to operate without user input at that device. Instead, the evidence establishes that this command is silent regarding the type of operation that can occur on the second device. *See, e.g.*, RX-0156 (“UPnP Design by Example”) (882PRIOR00031299) (defines SetAVTransportURI as follows: “Sets the AVTransportURI state variable”); RX-0146 (“AVTransport1 Service Template”) (UPnP_000132) (“the SetAVTransportURI action on the renderer device will initiate the creation of a RTSP session. In response to SetAVTransportURI, the renderer sends an rtsp::setup message to the RTSP server identified by the URI.”) The lack of restriction in this “SetAVTransportURI” instruction is confirmed by the different types of operations of the accused products upon receiving the same “SetAVTransportURI” instruction. *See* RX-0671C (Lipoff RWS) Q/A 115, 119, 121-124, 153-157, 163-172; RX-0673C (Polish RWS) Q/A 161.

Toshiba products do not operate “without user input at the second device,” as shown by their failure to respond to a “SetAVTransportURI” command when operating in CloudTV mode. CX-0685 (Ramirez RWS) Q/A 82; RX-0667C (Goldberg RWS) Q/A 276-277. Specifically, if

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the accused Toshiba televisions do not respond to a SetAVTransportURI command when operating in cloud TV mode, then the SetAVTransportURI instruction does not “direct” the accused Toshiba televisions to operate in a particular manner without user input at the television. This is because a user input is necessary to remove the accused Toshiba television from cloud TV mode before any SetAVTransportURI instruction can be acted upon. CX-0685 (Ramirez RWS) Q/A 82; RX-0667C (Goldberg RWS) Q/A 276-277.

In addition to the configuration required for receiving media explained above, streaming media to a player device in the accused three-box DLNA setup requires connecting a Player Device (*e.g.*, the “second device”) and configuring it to receive media from the digital controller (*e.g.*, first device). The tablet cannot stream media to a Toshiba TV, or select the Toshiba TV as the playback source, unless and until the user first enables the media renderer features on the Toshiba TV as explained above. Therefore, there is no operation of the accused Toshiba tablet itself that renders it “configured to facilitate . . . directing . . . user input at the second device” as required by asserted claims 23, 30, 37, and 45.

c. Toshiba Mobile Devices with DIAL-enabled YouTube

For the reasons discussed below in the section addressing the infringement analysis of all accused products associated with DIAL-enabled YouTube (regardless of which respondent’s product is accused), the accused Toshiba tablets associated with DIAL-enabled YouTube do not infringe the asserted claims of the ’873 patent.

2. Indirect Infringement

For the system claims asserted against Toshiba Mobile Devices, BHM’s indirect infringement allegation is made in the alternative. BHM argues that even if the system claims require both a first device and a second device to infringe, those claims would be contributorily

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infringed by Toshiba's Mobile Devices. *See* Toshiba Br. at 93. These contributory infringement arguments fail for several reasons. First, BHM fails establish an underlying direct infringement necessary for finding indirect infringement. Second, BHM has not identified the "component" that it alleges is especially adapted to infringe the asserted claims of the '873 patent. Third, the accused devices and associated applications are not especially made for use in infringing any asserted system claim and have substantial non-infringing uses.

With respect to the one method claim still asserted against the Mobile and Player Devices, BHM alleges that the accused Toshiba Mobile and Payer Device indirectly infringe both contributorily and through inducement. BHM's contributory theories fail for the same reasons they fail for the system claims. BHM's inducement theories fail for additional reasons: (1) BHM has offered no evidence of actual use of the accused devices by any person not affiliated with Toshiba (or even Toshiba), (2) BHM has failed to prove that Toshiba had the requisite specific intent to induce end users to infringe the asserted claims, and (3) none of the user manuals or other evidence BHM cites teaches every step of method claim 1.

a. **Contributory Infringement**

As discussed above, BHM has not introduced evidence showing that the accused tablets have been combined with a "second device" in an infringing manner by a third party either at or after importation. *See, e.g.*, RX-0667C (Goldberg RWS) Q/A 296-330.

To establish contributory infringement, BHM bears the burden of proving that the accused component is a material part of the invention and lacks substantial non-infringing uses. *See Electronic Digital Media Devices*, Comm'n Op. at 44. As discussed elsewhere with respect to the accused products of other respondents, BHM has not identified which software (and/or hardware) within the accused application it alleges constitutes the "component," or explained

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how that alleged portion of the application is separate and distinct from the rest of the application.

To the extent the accused “component” is the entire accused device, the accused Toshiba products each have uses that do not infringe the asserted claims. For example, the accused televisions can be used to watch television, the accused Blu-ray players can be used to play movies and music stored on optical discs, and the accused tablets can be used for multiple general purpose computing functions, including Internet web browsing. Loy Tr. 508; RX-0667C (Goldberg RWS) Q/A 347; RX-0685C (Ramirez RWS) Q/A 32, 56, 58, 129-130; CX-0672 (Blu-ray Marketing Sheet); CX-0682 (TV Marketing Sheet); CX-0680 (Tablet Marketing Sheet); RX-0684C (Okumura RWS) Q/A 32, 87, 122, 125.

Moreover, if the accused “component” were the accused applications themselves, the evidence shows that they also have substantial noninfringing uses. RX-0667C (Goldberg RWS) Q/A 348-353. DLNA is only one function of the Toshiba Media Share and Toshiba Media Player applications running on the accused Toshiba devices. RX-0667C (Goldberg RWS) Q/A 348-353, 218-224. Both the Toshiba Media Share and Toshiba Media Player applications are more broadly designed and can play back videos, display photos, and play music locally stored media (*e.g.*, media stored on a USB for the TVs/Blu-ray players, or media stored on an micro-SD card or micro-USB device for the tablets). *Id.*; RX-0685C (Ramirez RWS) Q/A 32, 56, 58; RX-0684C (Okumura RWS) Q/A 32, 87, 122, 125; CX-0695; CX-0696. For example, local playback is described in the TV user guides, including CX-0695 and CX-0696. In addition, the L9300U series TVs can play media stored on an external SD card with Media Share. RX-0667C (Goldberg RWS) Q/A 351.

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In addition, the DLNA functionality of the Media Share application is broader than just the accused media renderer functionality. For example, all the accused Toshiba devices can be used as a digital media player (“DMP”) by using the Media Share or Media Player application to access videos, photos, or songs located on a digital media server. RX-0667C (Goldberg RWS) Q/A 350-352, 218-224; RX-0685C (Ramirez RWS) Q/A 32, 56, 58; RX-0684C (Okumura RWS) Q/A 32, 87, 122, 125. Using the accused TVs and Blu-ray players as media renderers to play or display media stored locally on the accused tablets or any other digital media server is another noninfringing use of the Media Share’s DLNA functionality.³² *Id.* Furthermore, even when Media Share or Media Player is used in the accused three-box DLNA setup, playing a single song (or any other media that is not the accused “playlist”) is yet another noninfringing use. *See id.*

Accordingly, BHM has not shown that Toshiba is liable for contributory infringement of the ’873 patent.

b. Induced Infringement

BHM has failed to adduce evidence showing an underlying act of direct infringement, which is a predicate to a finding of induced infringement. BHM relies on a video from a 2012 CES trade show evidence of direct infringement by Toshiba of the accused DLNA functionality, but this video does not show direct infringement of the DLNA functionality. *See, e.g.,* CX-1068C (Loy RWS) Q/A 411-12 (citing CX-0868); RDX-0760C. First, none of the devices shown in the video are accused in this case. RX-0684C (Okumura RWS) Q/A 150-55. Second, it is not clear from the few seconds of video, which relate to an older version of the Toshiba Media Player application and therefore cannot be evidence of actual infringement for any

³² This is referred to as the two-box DLNA model because only two devices are being used.

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currently accused product, what is being shown. For example, the tablet could be playing content stored locally, *e.g.*, content that is not stored on a content server, and therefore performing a non-accused functionality. RX-0667C (Goldberg RWS) at Q/A 303-307. Third, there is no playlist shown in this video, and there is nothing in this video that suggests any of the media is arranged to be played in a sequence. Finally, BHM provides no limitation-by-limitation analysis of the video, and does not explain how it shows direct infringement of any asserted claim. RX-0667C (Goldberg RWS) Q/A 303-307.

BHM's expert also relies on a user guide and a marketing document as circumstantial evidence of direct infringement. CX-1068C (Loy DWS) Q/A 412-417. No Toshiba manual or user guide instructs or otherwise sets forth each and every limitation of any asserted claim, or does so together such that all limitations can be performed to infringe any asserted claim. RX-0667C (Goldberg RWS) Q/A 309-311. Therefore, the user manuals and other product documents fail to support a finding that these accused applications necessarily infringe any asserted claim.

The evidence also shows that Toshiba does not instruct or encourage users to perform the accused DLNA and DIAL operations with the accused Toshiba devices. For example, none of the of user manuals, videos, marketing documents, and tutorials that BHM cites teaches every step of any asserted method claim. To the extent they teach anything, they teach operations associated with only one of the multiple devices required to meet any asserted claim. None of the materials cited by BHM describes the operations and configuration required on all devices to make the alleged infringing system operate.

BHM has also not provided evidence that Toshiba has acted with specific intent to encourage any individual to actually infringe any asserted claim of the '873 patent. BHM has

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not identified evidence of Toshiba teaching or encouraging another to practice each and every step of any asserted claim of the '873 patent. No Toshiba document, including user guides and manuals, provides instructions that describe how to perform every element of any asserted claim. Further, on-screen menus, arrangement of features and functions, or tutorials are also not evidence of Toshiba's actions because Toshiba is neither the author of these menus nor does it have control over this information. RX-0667C (Goldberg RWS) Q/A 334-353.

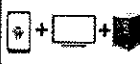




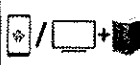









Accordingly, BHM has not shown that Toshiba is liable for induced infringement of the '873 patent.

G. Infringement Analysis of Google's DIAL-Enabled YouTube Mobile Application

BHM alleges that certain Samsung, LG, Toshiba, and [] devices associated with the DIAL-enabled YouTube mobile application, Google Play Music, Google Locations+, or Google Latitude practice certain claims of the asserted patents. The record evidence shows that Google's products operate in the same manner across Respondents' and [] devices. *See* RX-0666C (Bishop RWS) Q/A 69, 125, 129, 179; Zatkovich Tr. 63, 83.

The following demonstrative, which was finalized before BHM filed its motion to terminate claims 17 and 19-20 of the '593 patent and claims 1-4 of the '952 patent, summarizes BHM's allegations of infringement regarding Google applications associated with Respondents' accused products.

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Patents	Accused Google Apps	Accused Respondent Devices		
		Samsung	LG	Toshiba
'873 	 + Dial-enabled YouTube Application	 1, 5, 8, 16, 23, 27, 30, 34, 37, 45	 1, 5, 16, 23, 27, 30, 34, 45	 1, 16, 23, 30, 45
'952 / '652 	 + Google Play Music	 '952: 1-4, 9, 14 '652: 1, 11, 13	  '952 (mobile): 1-4, 9, 14 '952 (player): 9, 14 '652 (mobile): 1, 11, 13	 '952: 1-4, 9, 14 '652: 1, 11, 13
'593 	 + Google Locations+	 7, 17-20	 7, 17-20	

RDX-0635 (Summary of infringement allegations from CX-1067C and CX-1068C).

1. Direct Infringement

As the record evidence demonstrates, YouTube is a video-sharing website that has been owned by Google since late 2006. *See* RX-0566C (Bobohalma RWS) Q/A 11. YouTube is commonly used to upload, view, and share videos. YouTube uses video and HTML5 technology to display a wide variety of user-generated video content, including movie clips, television clips, and music videos, as well as amateur content such as video blogging, short original videos, and educational videos. *Id.*

The YouTube mobile application launched in June 2007. RX-0566C (Bobohalma RWS) Q/A 19. The video content resides on a YouTube content server. JX-0057C (Bobohalma Dep.) at 88. The YouTube mobile application allows users to use their mobile device to access many

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of YouTube's popular features, such as playing and watching videos, creating lists of videos, reviewing others' lists, and sharing content with friends. RX-0566C (Bobohalma RWS) Q/A 12. In addition, the YouTube mobile application allows users to select videos to be played on certain available, capable media player devices that are connected to the same WiFi network as the mobile device. *Id.* at Q/A 13. Capable media player devices must be WiFi-enabled and have an internet browser. *Id.* at Q/A 14, 21.

Before the YouTube mobile application can be used to play videos on a media player device, the mobile device and media player device must be "paired." RX-0566C (Bobohalma RWS) Q/A 13-14. [

]. *Id.* at Q/A 26-27; JX-0057C (Bobohalma Dep.) 116-117. The user can accomplish pairing in at least two different ways. RX-0566C (Bobohalma RWS) Q/A 14; JX-0057C (Bobohalma Dep.) at 28. The first is manual pairing, which requires the user to obtain a pairing code from the media player device and input it on the mobile device. RX-0566C (Bobohalma RWS) Q/A 14; JX-0057C (Bobohalma Dep.) at 25-26. The second way to pair uses the "Discovery-and-Launch," or "DIAL," protocol. JX-0057C (Bobohalma Dep.) at 35-36; RX-0566C (Bobohalma RWS) Q/A 14. A DIAL-enabled YouTube mobile application on the mobile device allows for automatic discovery of and pairing with DIAL-enabled media player devices that are powered-on and connected to the same local WiFi network. RX-0566C (Bobohalma RWS) Q/A 14. The DIAL pairing automates the pairing code procedure and then launches the YouTube HTML5 browser application on the media player device. *Id.* at Q/A 28. In order for DIAL pairing to work, the media player device must be DIAL-enabled with a compliant DIAL server. *Id.* at Q/A 21, 24.

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The DIAL-enabled YouTube mobile application has been released in multiple versions, with the first version launched in June 2007 and the most recent version released in late 2013.

JX-0057C (Bobohalma Dep.) at 37-38. [

] RX-0566C (Bobohalma RWS) Q/A 20; JX-0057C (Bobohalma Dep.) at 205-206. [

] RX-0566C (Bobohalma WS) Q/A 15, 18.

As discussed in more detail below, BHM has not adduced evidence showing that products associated with the DIAL-enabled YouTube application satisfies all limitations of the asserted '873 patent claims. The following sections highlight specific limitations that are not practiced by the accused products.

a. “directing [...] the [at least one] second device ...”

Each asserted claim of the '873 patent requires the “first device” to “direct” the “second device” to receive or obtain a media item. The accused devices associated with the DIAL-enabled YouTube mobile application do not infringe the '873 patent because the DIAL-enabled YouTube mobile application does not “direct” the media player device to receive or obtain a media item. [

] Loy Tr. 360.

BHM’s infringement argument centers on the fact that [

] Loy Tr. 343; RX-0566C (Bobohalma RWS)

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Q/A 28. [

]. RX-0566C (Bobohalma RWS) Q/A 28, 30; Bobohalma Tr. 1359. [

]. *Id.* [

]. *Id.*; Loy Tr. 343.³³

As discussed below, the evidence demonstrates that [

], the “directing”

limitation is not satisfied. It is demonstrated by the source code, the testimony of YouTube engineer Ramona Bobohalma, and the testimony of BHM’s own expert Dr. Loy that [

].

BHM fails to adduce source code or other evidence that shows the DIAL-enabled YouTube mobile application directing the media player device, and ignores evidence that [

]. BHM further discounts its own expert’s packet sniffing evidence and testimony that, [

]

³³ See also CX-1068C (Loy DWS) Q/A 104, 170, 185, 284, 292, 377, 383, 516, 522; CPX-0111C (Video of Test 101); CPX-0112C (Video of Test 101 without audio); CPX-0114C (Video of Test 102); CPX-0115C (Video of Test 102 without audio); CPX-0120C (Video of Test 107); CPX-0121C (Video of Test 107 without audio); CPX-0122C (Video of Test 108); CPX-0123C (Video of Test 108 without audio); CPX-0065C (Packet trace evidence from Test 101); CPX-0070C (Packet trace evidence from Test 102); CPX-0080C (Packet trace evidence from Test 107b); CPX-0081C (Packet trace evidence from Test 108); CDX-0002C (Samsung packet tracing demonstrative); CDX-0003C (LG packet tracing demonstrative), CDX-0005C (Toshiba packet tracing demonstrative); CDX-0006C ([] packet tracing demonstrative).

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[

]. *See, e.g.*, Loy Tr. 477;

CPX-0065C (Packet trace evidence from Test 101); [

].

See, e.g., RX-0566C (Bobohalma RWS) Q/A 30.

BHM's allegations regarding the DIAL-enabled YouTube mobile application are supported by Dr. Loy's reliance on video and packet sniffing evidence in lieu of source code analysis. CX-1068C (Loy DWS) Q/A 577 ("[

]"). [

]. *See id.*; RX-0666C (Bishop RWS) Q/A 91. Dr. Bishop describes

[]:

[

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].

RX-0666C (Bishop RWS) Q/A 91; *see also* RX-0566C (Bobohalma RWS) Q/A 24, 26. As described below, [

]. *Id.*

If a user desires to play a video on a screen other than the mobile device screen, the user must first pair the mobile device and media player device. RX-0666C (Bishop RWS) Q/A 92; RX-0566C (Bobohalma RWS) Q/A 24. While this pairing can be accomplished manually, the DIAL-enabled YouTube mobile application allows for pairing through the DIAL protocol, [

]. RX-0666C (Bishop

RWS) Q/A 92; RX-0566C (Bobohalma RWS) Q/A 24; CX-1297 (DIAL Protocol); Bobohalma Tr. 1365. [

]³⁴ [

].

JX-0057C (Bobohalma Dep.) at 104 (“[

].”). [

]

³⁴ [

93; RX-0566C (Bobohalma RWS) Q/A 26. [

] RX-0666C (Bishop RWS) Q/A

]. *Id.*

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[

]. CX-1297 (DIAL Protocol); RX-0666C

(Bishop RWS) Q/A 98; RX-0566C (Bobohalma RWS) Q/A 28. [

]. *Id.* [

]. RX-0566C (Bobohalma RWS) Q/A 28; CX-1297 (DIAL Protocol).

[

]. Loy Tr. 343.

Even in the narrow use case of the DIAL-enabled YouTube mobile application that Dr. Loy tested, the evidence shows that BHM's infringement allegations misapply the relationship between the mobile device, the media player device, and the role of the DIAL protocol. [

].

Bobohalma Tr. 1362 (“[

].”). [

]. CX-1297 (DIAL Protocol). As Dr. Bishop testified, “[

].” RX-0802C (Bishop Dep.) at 146. As illustrated

below, [

]

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[

]. CX-1297 (DIAL Protocol) at 3 ([
]).

[ILLUSTRATION REDACTED]

Id. As shown above, [

] *Id.* The evidence therefore demonstrates that [

].

Significantly, Dr. Loy testified that [

]. Loy Tr. 340 (“[

]”), 338 (“[

]

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[]”); CX-1297 (DIAL Protocol).

Therefore, BHM’s own expert testified that [

].

Furthermore, in the rare use case upon which BHM’s infringement theory is based, *i.e.*,

[

]. RX-0666C (Bishop RWS)

Q/A 100; RX-0566C (Bobohalma RWS) Q/A 30. [

] RX-0802C (Bishop Dep.) at 173. [

] *Id.*

at 178. BHM’s expert Dr. Loy testified that [

] Loy Tr. 492. Dr. Loy further testified that, [

]. Loy

Tr. 477. The evidence shows that [

] RX-0802C (Bishop Dep.) 184.

BHM’s own evidence shows that [

]. Dr. Loy’s tests and testimony indicate that [

]. Dr. Loy concedes that [

]

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[]. Loy Tr. 354, 355-365. [

]. Loy Tr. 360.

It is further evident [

].³⁵ For

example, [

].

³⁵ See, e.g., CDX-0002C (Samsung packet tracing demonstrative); CDX-0003C (LG packet tracing demonstrative); CDX-0005C (Toshiba packet tracing demonstrative); CDX-0006C ([] packet tracing demonstrative); CPX-0065C (Packet trace evidence from Test 101); CPX-0070C (Packet trace evidence from Test 102); CPX-0080C (Packet trace evidence from Test 107b); CPX-0081C (Packet trace evidence from Test 108).

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[ILLUSTRATION REDACTED]

See also CX-1068C (Loy DWS) Q/A 170, 185, 284, 292, 377, 383, 516, 522. Further, as Dr.

Loy testified at trial and at deposition, [

]. Loy Tr. 354 (“[

].”). [

] Loy

Tr. 358-359.

This discrepancy is found in every BHM packet tracing demonstratives and underscores the conclusion that videos and packet traces do not explain how the accused devices actually

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operate. RX-0666C (Bishop RWS) Q/A 104; CX-1068C (Loy DWS) Q/A 577.³⁶ [

]. RX-0666C (Bishop RWS) Q/A

110. What the evidence shows is that [

].

CX-1068C (Loy DWS) Q/A 596; Bobohalma Tr. 1365 (“[

].”). However, [

]. Therefore, the evidence adduced by BHM is inconclusive as to [

].

By contrast, Dr. Bishop’s source code analysis confirms that the media player device directs itself. The source code shows that, [

].

RX-0666C (Bishop RWS) Q/A 101-102. The source code further shows that [

]. *Id.* [

]

³⁶ See CDX-0002C (Samsung packet tracing demonstrative); CDX-0003C (LG packet tracing demonstrative); CDX-0005C (Toshiba packet tracing demonstrative); CDX-0006C ([] packet tracing demonstrative); CPX-0065C (Packet trace evidence from Test 101); CPX-0070C (Packet trace evidence from Test 102); CPX-0080C (Packet trace evidence from Test 107b); CPX-0081C (Packet trace evidence from Test 108).

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[]. Loy Tr. 491-493. [

] *Id.*; RX-0666C (Bishop RWS) Q/A 101-102.

Accordingly, [

], BHM has not met its burden to establish that devices associated with the DIAL-enabled YouTube mobile application “direct” a media player to obtain or receive a video.

b. “device identifiers”

Each asserted independent claim of the ’873 patent contains limitations for displaying and selecting “device identifiers.” The evidence shows that accused devices associated with the DIAL-enabled YouTube mobile application do not infringe the ’873 patent because devices associated with the DIAL-enabled YouTube mobile application present to the user a list of “friendly names” that do not satisfy the “device identifier” requirement.

“Device identifier,” as construed above, means “[an indicium] [indicia] for uniquely identifying the second device.” Devices associated with the DIAL-enabled YouTube mobile application cannot infringe this limitation because a friendly name is not an indicium uniquely identifying a second device. Rather, the friendly name refers to [

].

See, e.g., CX-1068C (Loy DWS) Q/A 150; RX-0666C (Bishop RWS) Q/A 77; RX-0566C (Bobohalma RWS) Q/A 24-25; RX-0802C (Bishop Dep.) at 144) (“[

].”), 150 (“[

]

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[

].”)

As explained by YouTube engineer Ramona Bobohalma, [

]. RX-0566C (Bobohalma RWS) Q/A 25. [

]. See RPX-0070C ([]; RX-0666C (Bishop

RWS) Q/A 77; RX-0566C (Bobohalma RWS) Q/A 25. The evidence demonstrates that the DIAL-enabled YouTube mobile application is specifically designed not to display indicia uniquely identifying a second device as required by the claims.

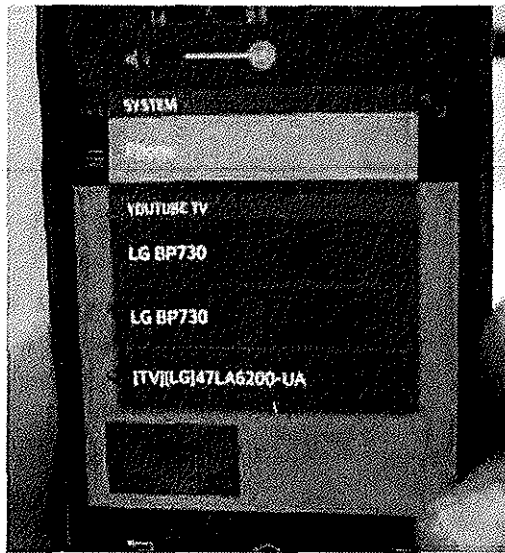
]. This is evident from Dr. Loy’s witness statement, [

]. CX-1068C (Loy DWS) Q/A 266, 269.

This example illustrates that [

]. RX-0666C (Bishop RWS) Q/A 78.

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RX-0759 (YouTube Screenshot).

Therefore, devices associated with the DIAL-enabled YouTube mobile application do not practice the “device identifier” limitation under any proposed construction, including that of BHM: “indiciu[-ia] of a device” because regardless of construction, a “device identifier” must identify a device to a user such that the user is able to select a particular device to act as the “second device.” As discussed above, the DIAL-enabled YouTube mobile application does not [

] RX-0802C (Bishop Dep.) 155; RX-0666C (Bishop RWS) Q/A 78; *see also* RX-0566C (Bobohalma RWS) Q/A 25. Therefore, Dr. Loy’s testimony that [

]

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[]³⁷ CX-1068C (Loy DWS) Q/A 584.

Dr. Loy's testimony highlights the same points for each respondent and [], relying on screenshots and videos to support his conclusion. *See* CX-1068C (Loy DWS) Q/A 150, 152, 266, 269, 366, 368, 504, 506. Dr. Loy states that this evidence and his testing show that [

] CX-1068C (Loy DWS) Q/A 152, 269, 368, 506.

Moreover, Dr. Loy does not explain how [

].

Finally, Dr. Loy testified that, even if the friendly name fails [

]. For

example, [

] CX-1068C (Loy DWS)

Q/A 584. However, Dr. Loy also testified that [

]. *Id.* at Q/A 86. Regardless

of whether [

] RX-0666C (Bishop RWS) Q/A 85. Dr. Loy's example, therefore, fails to support BHM's infringement position.

Dr. Loy's opinion that a "friendly name" meets the "device identifier" limitation under the doctrine of equivalents also fails to prove infringement. Dr. Loy provides no "particularized

³⁷ Dr. Loy also states that "this situation would be extremely rare," without noting that this "extremely rare" situation arises in his own testimony about his own experiments. CX-1068C (Loy DWS) Q/A 266, 269.

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and linking argument” to explain how he arrived at his conclusions. CX-1068C (Loy DWS) Q/A 584. Nevertheless, the function, way, and result are not the same. See RX-0666C (Bishop RWS) Q/A 86. [

]. *Id.* [

]. *Id.* [

].

Accordingly, devices associated with the DIAL-enabled YouTube mobile application do not meet the limitations requiring displaying and selecting a device identifier.

c. “remote control”

Asserted dependent claim 37 of the ’873 patent depends from claim 36, which states that the first device must be a “remote control.” Inasmuch as the accused mobile devices associated with YouTube are mobile phones and tablets, they do not comprise remote controls and cannot infringe the claims incorporating this limitation. As construed above, “remote control” means “a device dedicated to controlling a second device.”³⁸ Devices associated with the DIAL-enabled YouTube mobile application are not dedicated to controlling a second device. The evidence shows that [

]

³⁸ Devices associated with the DIAL-enabled YouTube mobile application also do not meet this limitation under the construction proposed by the Staff: “small handheld portable device – with functionalities disclosed in the specification” where the “small handheld portable device” is a “common media device remote control.”

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[]. RX-0666C (Bishop RWS) Q/A 116. [

]. RX-0566C (Bobohalma RWS) Q/A

12.

Further, unlike a dedicated remote control or a common media device remote control, [

]. RX-0566C (Bobohalma RWS) Q/A 14 (“[

].”). [

]. *Id.* at Q/A 26. [

].

Accordingly, inasmuch as devices associated with the DIAL-enabled YouTube mobile application do not comprise remote controls, BHM has not met its burden of establishing that devices associated with the DIAL-enabled YouTube mobile application practice claim 37 of the '873 patent.³⁹

³⁹ Dr. Loy states that using mobile phones as remote controls is an after-arising technology whose use makes an insubstantial difference in the patented invention, and that devices associated with YouTube infringe under the doctrine of equivalents. Yet, the basis for such an opinion is unclear. For example, BHM has not provided an analysis comparing the function, way, and result, BHM has not shown that the products with DIAL-enabled YouTube infringe under the doctrine of equivalents. *See Creative Internet Adver. Corp. v. Yahoo!, Inc.*, 472 Fed.

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2. Infringement at the Time of Importation

a. Proof of Direct Infringement

BHM alleges that Respondents directly infringe device claims 23, 30, 34, 37, and 45 of the '873 patent at the time of importation in violation of section 337, and that [] directly practices certain claims of the '873 patent. However, as explained above, devices associated with the DIAL-enabled YouTube mobile application do not meet every limitation of the asserted claims at the time of importation. Each of the asserted claims of the '873 patent requires at least one "first device," one or more "second devices," a "content server," and, in certain claims, a "network transceiver." Moreover, the devices are not "configured to facilitate" performance of the claimed limitations as required by the claims because [

]. RX-0566C (Bobohalma

RWS) Q/A 24. [

]. *See id.* Accordingly, BHM

has not established that devices associated with the DIAL-enabled YouTube mobile application infringe at the time of importation, as required by section 337.

b. Indirect Infringement

BHM alleges that Respondents indirectly infringe device claims 23, 30, 34, 37, and 45 and method claims 1 and 5 of the '873 patent at the time of importation in violation of section 337 and that [] indirectly practices the '873 patent. As discussed above, devices associated with the DIAL-enabled YouTube mobile application do not meet every limitation of the asserted

App'x 724, 732 (Fed. Cir. 2011); *Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1363 (Fed. Cir. 2005).

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claims even after importation, as required for a finding of indirect infringement. In addition, BHM fails to meet its burden with respect to four critical elements required for a finding of indirect infringement at the time of importation.

First, as discussed above, BHM has failed to prove a required underlying act of direct infringement necessary for a finding of indirect infringement. “In order to prove [such underlying] direct infringement, a patentee must either point to specific instances of direct infringement or show that the accused device necessarily infringes the patent in suit.” *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm’n Op. at 36 (Aug. 9, 2013). BHM has not presented evidence of specific instances of direct infringement by a third party. RX-0666C (Bishop RWS) Q/A 114. BHM’s expert Dr. Loy does not present direct evidence of specific instances of end user acts. *Id.* He does state in his direct witness statement that “it is more likely than not” that end users infringed the ’873 patent by using the DIAL-enabled YouTube mobile application, but this is not enough to show direct infringement. *Id.*; CX-1068C (Loy DWS) Q/A 231, 331, 425-426, 563. In addition, Dr. Loy did not present evidence that the accused products necessarily practice the claims of the ’873 patent. *Id.* They do not, for the reasons discussed above and because products associated with the DIAL-enabled YouTube mobile application have substantial noninfringing uses. *Id.*

Second, BHM has not proven the requisite knowledge and intent. Before holding any party indirectly liable for the infringing acts of its customers, the party must have knowledge that the customers’ acts constitute patent infringement. *Global Tech*, 131 S. Ct. at 2069. Dr. Loy testified that each respondent has been aware of the asserted patents and infringement allegations “since at least as early as the date upon which the district court complaint was filed against it.” *See, e.g.*, CX-1068C (Loy DWS) Q/A 235, 237, 336, 338, 429, 431. Dr. Loy, however, does not

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cite evidence to show that respondents willfully blinded themselves to the '873 patent and the alleged infringing conduct.

Third, as to inducement, BHM has not shown that Respondents took affirmative steps to induce infringement. Active inducement requires the “taking of affirmative steps to bring about the desired result.” *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct 2060, 2065, 2068 (2011). Dr. Loy opines that Respondents have encouraged and enabled the use of the accused DIAL-enabled YouTube mobile application functionalities. CX-1068C (Loy DWS) Q/A 195, 235, 237, 336, 338, 393, 429, 431. Dr. Loy, however, is not qualified to speak to Respondent’s knowledge or intent, either by virtue of any expertise or by foundation. Dr. Loy provides no details to explain how any evidence supports his position that Respondents had any specific intent or took any affirmative steps to induce infringement. RX-0666C (Bishop RWS) Q/A 120. At most, the documents and manuals cited by Dr. Loy explain the general benefits of DIAL or YouTube, and cannot support a finding of intent. *Id.*; see RX-0566C (RWS Bobohalma) Q/A 30.

Fourth, as to contributory infringement, and as discussed in the following section, BHM failed to demonstrate that the accused products constituting material parts of the inventions are not staple articles of commerce suitable for substantial noninfringing use. *See Electronic Digital Media Devices*, Comm’n Op. at 44.

c. Substantial Noninfringing Uses

BHM relies on “DIAL-enabled YouTube code” for the analysis of substantial noninfringing uses.⁴⁰ *See, e.g.*, CX-1068C (WS Loy) Q/A 195, 393. For his infringement analysis, however, Dr. Loy relies broadly on the devices themselves. The record evidence

⁴⁰ Notably, BHM did not enter a single portion of YouTube code into evidence.

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demonstrates the accused devices associated with the DIAL-enabled YouTube mobile application have substantial noninfringing uses not related to viewing media items on a media player device. The accused phones and tablets themselves have substantial noninfringing uses not even related to playing media on the device, much less on a separate media device. The devices are used primarily for communications, entertainment, navigation, connectivity, directions, maps, business uses, web searching, and other functions, and not for playing media content on an additional, separate screen. RX-0666C (Bishop RWS) Q/A 116.

The DIAL-enabled YouTube application itself also has substantial noninfringing uses and is used primarily to share and show content on the mobile device screen. RX-0666C (Bishop RWS) Q/A 117. As Dr. Loy testified, it is possible to view YouTube content on the mobile device itself. Loy Tr. 335 (“[I]n every case where I was making a video and Wireshark analysis of DIAL-enabled YouTube, there was a video which was playing on the phone . . .”). Users can also browse and create playlists through the application on the mobile device without utilizing a separate screen. The evidence shows that many YouTube users are not likely to ever use YouTube to play videos on a separate screen through DIAL pairing. RX-0666C (Bishop RWS) Q/A 117. Dr. Loy also testified that he has used YouTube in a noninfringing manner, including using the YouTube application to play content on the mobile device itself. *Id.* Publicly available documents and videos demonstrate these substantial noninfringing uses. For example, RX-0471 (Webpage, YouTube - Android Apps on Google Play) and RPX-0345 (YouTube for Android Video Review) both demonstrate that the DIAL-enabled YouTube mobile application has the many substantial noninfringing uses discussed above. RX-0666C (Bishop RWS) Q/A 119.

There are also substantial noninfringing uses of the functionality of the DIAL-enabled

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YouTube mobile application that allow a user to play videos on a media player device. As discussed above, Dr. Loy testified only that one narrow use case infringes: when the user is playing a video on the mobile device and then pairs the mobile device to a media player through the DIAL protocol. Loy Tr. 343. Accordingly, connecting the devices through manual pairing rather than DIAL is a substantial noninfringing use. RX-0666C (Bishop RWS) Q/A 118; Bobohalma Tr. 1365 (“Q: If either of the first two [DIAL] requests fail, can you watch -- can you watch the YouTube video from the mobile device on the player television? A: You could if you manually pair and you start the mobile application on the device with the remote.”).

In addition, even when the devices are connected through the DIAL protocol, [

]. Loy Tr. 343. BHM focuses its infringement

allegations squarely on [

]. CX-1068C (Loy DWS)

Q/A 577; RX-0566C (Bobohalma RWS) Q/A 28; RX-0666C (Bishop RWS) Q/A 91; CX-1295C

([]).

]. *Id.* [

].⁴¹

⁴¹ As discussed above with respect to the construction of the “directing” limitations, [

Almeroth Tr. 658 (“[

Polish Tr. 1310 (“[

].”);

].”);

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RX-0666C (Bishop RWS) Q/A 94; RX-0566C (Bobohalma RWS) Q/A 26; RPX-0071C

([] ([]);

CX-1295C ([]). Finally, [

], RX-0666C (Bishop RWS) Q/A 118.

Accordingly, it has not been shown that devices associated with the DIAL-enabled YouTube mobile application lack substantial noninfringing uses, and BHM has not shown that devices associated with YouTube necessarily infringe the '873 patent. *See Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1362 (Fed. Cir. 2012) (recognizing patentee’s burden to show lack of substantial noninfringing uses).

H. Technical Prong of the Domestic Industry Requirement

1. General Principals of Law⁴²

A violation of section 337(a)(1)(B), (C), (D), or (E) can be found “only if an industry in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established.” 19 U.S.C.

§ 1337(a)(2). Section 337(a) further provides:

(3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the

Loy Tr. 463-464 (“[

]”); CX-1068C (Loy WS) ([

]). Regardless of construction, there is no infringement for all of the reasons set forth above.

⁴² The legal principles set forth in this section apply equally to the technical prong analysis of the other patents asserted in this investigation.

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articles protected by the patent, copyright, trademark, mask work, or design concerned—

(A) significant investment in plant and equipment;

(B) significant employment of labor or capital; or

(C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3).

These statutory requirements consist of an economic prong (which requires certain activities)⁴³ and a technical prong (which requires that these activities relate to the intellectual property being protected). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 13 (May 16, 2008) (“*Stringed Musical Instruments*”). The burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied. *Certain Multimedia Display and Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. at 5 (July 22, 2011) (“*Navigation Devices*”).

“With respect to section 337(a)(3)(A) and (B), the technical prong is the requirement that the investments in plant or equipment and employment in labor or capital are actually related to

⁴³ The Commission practice is usually to assess the facts relating to the economic prong at the time that the complaint was filed. See *Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same*, Inv. No. 337-TA-560, Comm'n Op. at 39 n.17 (Apr. 14, 2010) (“We note that only activities that occurred before the filing of a complaint with the Commission are relevant to whether a domestic industry exists or is in the process of being established under sections 337(a)(2)-(3).”) (citing *Bally/Midway Mfg. Co. v. U.S. Int'l Trade Comm'n*, 714 F.2d 1117, 1121 (Fed. Cir. 1983)). In some cases, however, the Commission will consider later developments in the alleged industry, such as “when a significant and unusual development occurred after the complaint has been filed.” See *Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op., at 5-6 (Jan. 20, 2012) (“[I]n appropriate situations based on the specific facts and circumstances of an investigation, the Commission may consider activities and investments beyond the filing of the complaint.”).

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'articles protected by' the intellectual property right which forms the basis of the complaint." *Stringed Musical Instruments* at 13-14. "The test for satisfying the 'technical prong' of the industry requirement is essentially same as that for infringement, i.e., a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). "With respect to section 337(a)(3)(C), the technical prong is the requirement that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right." *Stringed Musical Instruments* at 13.

2. The [] Devices

BHM has alleged that a broad range of [] devices, classified as either "Mobile Devices" or "Player Devices," satisfy the technical prong of the domestic industry requirement for the '873 patent. *See* CX-1215 (Complainant's Identification of Models of Domestic Industry Products). BHM's allegations are summarized in the following chart.

[] Products/Functionality	Practiced Claims of '873 Patent
[] Mobile Devices with [] (e.g., DLNA functionality)	1, 5, 8, 16, 17, 19, 22, 23, 27, 30, 34, 37, 45
[] Player Devices with [] (e.g., DLNA functionality)	1, 8, 16, 17, 19, 22, 27
[] Mobile Devices with DIAL-enabled YouTube	1, 5, 8, 16, 23, 27, 30, 34, 37, 45

See Resps. Br. at 260.

For the reasons set forth below, BHM has not shown that the technical prong of the domestic industry requirement is satisfied with respect to the '873 patent.

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a. [] | **Mobile and Player Devices with DLNA**

BHM has failed to show that devices with [] or [] functionality (collectively, “DLNA”), which allows a user to play media content and stream media content to other “DLNA” enabled players, practice the asserted claims of the ’873 patent.⁴⁴ Specifically, BHM has failed to present evidence that [] devices meet the “directing,” “without user input via the second device,” “playlist,” and “device identifier” limitations.

BHM failed to prove that [] devices with DLNA meet the “directing” limitation because the packet trace evidence presented by BHM’s expert shows only that a [] mobile device can send requests to a television. It does not establish that the television must perform the requested tasks. RX-0671C (Lipoff RWS) Q/A 356-58; CDX-0125 (Packet Trace Excerpt, DLNA Test 008). The evidence shows that, inasmuch as a user can block access to the media renderer for a specified mobile device, the media renderer must therefore check for device authorization before executing requests. RX-0671C (Lipoff RWS) Q/A 359-62; RX-0569C at 132 ([] manual describing how to block access to the television for a specified controller).

The record evidence further shows that the [] media renderer also must perform various status checks to determine whether it is in a state to play the requested media. For example, a media renderer will ignore a play request from a mobile device if the selected media item is not in a supported media format or if some other check is not satisfied. RX-0671C

⁴⁴ BHM did not provide evidence to support its allegations related to [] functionality, citing only to evidence related to [] devices with []. Therefore, BHM fails to satisfy its burden to prove that [] devices with [] functionality practice all the limitations of the ’873 patent.

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(Lipoff RWS) Q/A 359-62; *see* RX-0569C at 128-29 ([] manual states that the files need to be in specific formats or “playback may not be possible” and “playback may not be possible even when using the supported formats”). Thus, the controller does not “direct” a second device because the media renderer may ignore the requests.

These internal processes are not captured by Dr. Loy’s videographic or packet trace evidence. RX-0671C (Lipoff RWS) Q/A 358. Without [] source code or testimony from knowledgeable [] representatives, which BHM has not offered, it is not possible to determine under what circumstances, if any, the television must perform the tasks requested by the mobile device. *Id.*

BHM also failed to prove that the [] mobile and player devices with DLNA meet the “without user input” limitation. BHM has not shown whether the television requires any input from the user before any media may be shared, such as a pop-up message asking the viewer to confirm that the controller may connect to the renderer. Without [] source code or testimony, it is not possible to determine whether input is necessary. RX-0671C (Lipoff RWS) Q/A 364. It is determined that the limitation is not met because BHM has not demonstrated that no user input is required at the second device prior to the initiation of a shared media experience. Further, BHM has not established that no user input is required at the second device for the same reasons that it has not shown that the “directing” limitation is met. *Id.* at Q/A 366.

BHM also has failed to prove that the [] mobile and player devices with DLNA meet the “playlist” limitation under BHM’s proposed construction. BHM’s evidence comprises a photograph that shows a mobile phone screen displaying a list of media items. This is not sufficient to prove that the mobile phone receives a list of media items arranged to be played in sequence. CX-1068C (Loy DWS) Q/A 508; RX-0671C (Lipoff RWS) Q/A 371.

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Similarly, BHM has not proved that the [] mobile and player devices with DLNA meet the “device identifier” limitation as required by each of the asserted claims of the ’873 patent, as that term was construed above. RX-0671C (Lipoff RWS) Q/A 367-69. The photograph BHM relies on to show the “device identifier” element displays a screen in which a Blu-Ray disc player is referred to as “Blu-Ray Disc Player.” This label does not uniquely identify the Blu-Ray player as required by the claim limitation. CX-1068C (Loy DWS) Q/A 504. Moreover, BHM failed to prove that the [] devices with [] meet the “plurality of device identifiers” limitation as required by claim 27 of the ’873 patent. At least in every occasion on which there is only one media renderer available on the same local network, the first device will not display a “plurality,” or more than one, of any device as a destination or target screen. RX-0671C (Lipoff RWS) Q/A 369.

b. [] **Mobile Devices with DIAL-Enabled YouTube**

BHM alleges that [] mobile devices with the DIAL-enabled YouTube application practice the asserted claims of the ’873 patent. As discussed above in the section relating to the infringement analysis of Respondents’ products incorporating the DIAL-enabled YouTube application, [] devices with DIAL-enabled YouTube do not practice the claims of the ’873 patent. In addition, BHM has provided no evidence of an end user ever actually using a [] device in the manner alleged to read on the claims. *See Microsoft v. ITC*, 731 F.3d 1354, 1360 (Fed. Cir. 2013) (affirming Commission “finding that [complainant] simply failed to identify any actual phones with the required components performing as required.”).

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I. Validity

1. General Principles of Law⁴⁵

One cannot be held liable for practicing an invalid patent claim. *See Pandrol USA, LP v. AirBoss Railway Prods., Inc.*, 320 F.3d 1354, 1365 (Fed. Cir. 2003). Nevertheless, each claim of a patent is presumed to be valid, even if it depends from a claim found to be invalid. 35 U.S.C. § 282; *DMI Inc. v. Deere & Co.*, 802 F.2d 421 (Fed. Cir. 1986).

A respondent that has raised patent invalidity as an affirmative defense must overcome the presumption of patent validity by “clear and convincing” evidence of invalidity. *Checkpoint Systems, Inc. v. United States Int’l Trade Comm’n*, 54 F.3d 756, 761 (Fed. Cir. 1995).

a. Anticipation

Anticipation under 35 U.S.C. § 102 is a question of fact. *z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1347 (Fed. Cir. 2007). Section 102 provides that, depending on the circumstances, a claimed invention may be anticipated by variety of prior art, including publications, earlier-sold products, and patents. *See* 35 U.S.C. § 102 (*e.g.*, section 102(b) provides that one is not entitled to a patent if the claimed invention “was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States”).

The general law of anticipation may be summarized, as follows:

A reference is anticipatory under § 102(b) when it satisfies particular requirements. First, the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently. *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed.Cir.2006). While those elements must be “arranged or combined in the same way as in the claim,” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545

⁴⁵ The legal principles set forth in this section apply equally to the validity analysis of the other patents asserted in this investigation.

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F.3d 1359, 1370 (Fed.Cir.2008), the reference need not satisfy an *ipsissimis verbis* test, *In re Bond*, 910 F.2d 831, 832-33 (Fed.Cir.1990). Second, the reference must “enable one of ordinary skill in the art to make the invention without undue experimentation.” *Impax Labs., Inc. v. Aventis Pharms. Inc.*, 545 F.3d 1312, 1314 (Fed.Cir.2008); see *In re LeGrice*, 49 C.C.P.A. 1124, 301 F.2d 929, 940-44 (1962). As long as the reference discloses all of the claim limitations and enables the “subject matter that falls within the scope of the claims at issue,” the reference anticipates -- no “actual creation or reduction to practice” is required. *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380-81 (Fed.Cir.2003); see *In re Donohue*, 766 F.2d 531, 533 (Fed.Cir.1985). This is so despite the fact that the description provided in the anticipating reference might not otherwise entitle its author to a patent. See *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed.Cir.1991) (discussing the “distinction between a written description adequate to support a claim under § 112 and a written description sufficient to anticipate its subject matter under § 102(b)”).

In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

b. Obviousness

Under section 103 of the Patent Act, a patent claim is invalid “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”⁴⁶ 35 U.S.C. § 103. While the ultimate determination of whether an invention would have been obvious is a legal conclusion, it is based on “underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.” *Eli Lilly and Co. v. Teva Pharmaceuticals USA, Inc.*, 619 F.3d 1329 (Fed. Cir. 2010).

⁴⁶ The standard for determining whether a patent or publication is prior art under section 103 is the same as under 35 U.S.C. § 102, which is a legal question. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987).

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The objective evidence, also known as “secondary considerations,” includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). “[E]vidence arising out of the so-called ‘secondary considerations’ must always when present be considered en route to a determination of obviousness.” *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

“One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *KSR*, 550 U.S. at 419-20. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.*

Specific teachings, suggestions, or motivations to combine prior art may provide helpful insights into the state of the art at the time of the alleged invention. *Id.* at 420. Nevertheless, “an obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way.” *Id.* “Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* A “person of ordinary skill is also a person of ordinary creativity.” *Id.* at 421.

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Nevertheless, “the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so.” *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007); *see KSR*, 550 U.S. at 416 (a combination of elements must do more than yield a predictable result; combining elements that work together in an unexpected and fruitful manner would not have been obvious).⁴⁷

c. Lack of a Written Description

The issue of whether a patent is invalid for failure to meet the written description requirement of 35 U.S.C. § 112, ¶ 1 is a question of fact. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 670 F.3d 1171, 1188 (Fed. Cir. 2012). A patent’s written description must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed. The test for sufficiency of a written description is “whether the disclosure of the application relied upon reasonable conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*)).

d. Indefiniteness

The definiteness requirement of 35 U.S.C. § 112 ensures that the patent claims particularly point out and distinctly claim the subject matter that the patentee regards to be the invention. *See* 35 U.S.C. § 112, ¶ 2; *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004). If a claim’s legal scope is not clear enough so that a person of

⁴⁷ Further, “when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 52 (1966)).

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ordinary skill in the art could determine whether or not a particular product infringes, the claim is indefinite, and is, therefore, invalid. *Geneva Pharm., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1384 (Fed. Cir. 2003).⁴⁸

Thus, it has been found that:

When a proposed construction requires that an artisan make a separate infringement determination for every set of circumstances in which the composition may be used, and when such determinations are likely to result in differing outcomes (sometimes infringing and sometimes not), that construction is likely to be indefinite.

Halliburton Energy Servs. v. M-I LLC, 514 F.3d 1244, 1255 (Fed. Cir. 2008).

The Supreme Court recently addressed the issue of indefiniteness, and stated that a finding of indefiniteness should not be found if the claims, “viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, No. 13-369, at 11 (June 2, 2014).

e. Inventorship

“A patent is invalid if more or less than the true inventors are named.” *Troyan, Ltd. v. Sokymat SA*, 299 F.3d 1291, 1301 (Fed. Cir. 2009). Nevertheless, inasmuch as a patent is presumed valid, there is a presumption that the named inventors on a patent are the true and only inventors. *Id.* (citing, *inter alia*, 35 U.S.C. § 282). “Moreover, to the extent that fewer than the true inventors are named on a patent, the patent may be corrected to so reflect as long as the nonjoinder was done without deceptive intent on the part of the person erroneously left off the patent.” *Id.* (citing 35 U.S.C. § 253).

⁴⁸ Indefiniteness is a question of law. *IGT v. Bally Gaming Int'l, Inc.*, 659 F.3d 1109 (Fed. Cir. 2011).

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Inventorship is a question of law. *Falana v. Kent State Univ.*, 669 F.3d 1349, 1356 (Fed. Cir. 2012); *Univ. of Pittsburgh v. Commonwealth Sys. of Higher Ed.*, 573 F.3d 1290, 1297 (Fed. Cir. 2009). A joint invention is the product of collaboration between two or more persons working together to solve the problem addressed. The inventors need not work physically together or contemporaneously to be joint inventors; nor must each inventor contribute equally or to each claim of the patent. *Univ. of Pittsburgh*, 573 F.3d at 1297. The inventors named in an issued patent are presumed correct, and a party alleging misjoinder of inventors must prove its case by clear and convincing evidence. *See id.*

“[A] joint inventor must contribute in some significant manner to the conception of the invention.” *Fina Oil and Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997). The contribution of a joint inventor must be significant.⁴⁹ Nevertheless, “[i]f a person supplies the required quantum of inventive contribution, that person does not lose his or her status as a joint inventor just because he or she used the services, ideas, and aid of others in the process of perfecting the invention.” *Id.* “[T]hose others may also in appropriate circumstances become joint inventors by their contributions. In addition, a person is not precluded from being a joint inventor simply because his or her contribution to a collaborative effort is experimental.” *Id.*

2. Lack of Written Description

Each independent claim in the '873 patent includes a negative limitation specifying that a first device “direct[s]” a second device to receive or obtain a media item from a content server “without user input via the second device.” The applicant added the “without user input” limitation during prosecution of the parent '323 patent to distinguish the purported inventions

⁴⁹ Thus, for example, “a person will not be a co-inventor if he or she does no more than explain to the real inventors concepts that are well known and the current state of the art.” *Fina Oil*, 123 F.3d at 1473. Rather, inventorship requires “an inventive act.” *Id.*

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from the prior art. A claim that includes a negative limitation satisfies the written description requirement of 35 U.S.C. § 112, ¶ 1 if, for example, the specification describes a reason to exclude the relevant subject matter from the invention. *See Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012). The '873 patent specification fails to mention the negative limitation, much less describe any disadvantages associated with “user input” at the second device. *See RX-0460C (Almeroth DWS) Q/A 315*. Moreover, the evidence shows that one of ordinary skill would not understand the benefits of excluding user input on the second device when reading the specification and the embodiments discussed therein. *See Almeroth Tr.* 665-666. Accordingly, one of ordinary skill would conclude that the applicant was not in possession of the “without user input” negative limitation when the original application was filed. *See RX-0460C (Almeroth DWS) Q/A 315*. All of the asserted claims are therefore invalid under 35 U.S.C. § 112, ¶ 1.

Although the *Santarus* opinion was published only recently, the Patent Trial and Appeal Board has applied the *Santarus* rule and 35 U.S.C. § 112, ¶ 1 to reject numerous claims with negative limitations.

For example, in *Ex parte Miyashita*, the claim at issue recited an Internet-based chat system comprising a server and multiple clients. *Ex parte Miyashita*, Appeal 2010-010626, 2013 WL 1401042, at *1 (Patent Tr. & App. Bd. Mar. 29, 2013). The limitation at issue in *Miyashita*, requiring that the server receives information and forwards the information to a client “without solicitation from the [client],” is similar to the “without user input” limitation at issue here. *Id.* The applicant in *Miyashita* cited to a flow chart showing communications between the server and clients, and argued that there is written description support for the negative limitation because the flow chart does not show solicitation by any client. *See id.* at *3. In affirming the rejection,

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the Board applied the *Santarus* rule and held that “Appellant’s Specification neither explicitly describes the negative limitation of excluding a solicitation . . . nor indicates possession of this feature by describing any advantage of excluding a solicitation or disadvantage of including a solicitation.” *Id.* at *3. With regard to the flow chart, the Board determined that “silence in the Specification is not enough to show possession of the claimed exclusion of a solicitation.” *Id.*

In *Ex parte Lazaridis*, the claim at issue recited a method for launching software applications, wherein the launch occurs “without the user having entered a delimiter denoting an end of the text string.” *Ex parte Lazaridis*, Appeal 2010-005137, 2013 WL 1331529, at *2-4 (Patent Tr. & App. Bd. Mar. 12, 2013). Therefore, the limitation in *Lazaridis* concerned performing an action without a user input. The specification did not explain the negative limitation, but provided an example where entering the text “e_j” would cause the application to send mail. *Id.* at *3. The Board affirmed the rejection, holding that because the exemplary embodiment “requiring only two key strokes to invoke the email composer application” does not explain any disadvantages to command-ending delimiters, the claim “effectively introduces a new concept that is not reasonably supported by the original disclosure.” *Id.*

Additional opinions from the Patent Trial and Appeal Board are consistent with *Santarus*. See *Ex parte Jung*, Appeal 2011-007279, 2013 WL 6698804, at *3-4 (Patent Tr. & App. Bd. Dec. 18, 2013); *Ex Parte Ho*, Appeal 2011-004664, 2013 WL 5667032, at *2 (Patent Tr. & App. Bd. Oct. 15, 2013); *Ex Parte Hullot*, Appeal 2011-002453, 2013 WL 5406700, at *2-3 (Patent Tr. & App. Bd. Sept. 17, 2013); *Ex parte Loretz*, Appeal 2010-009480, 2013 WL 1332674, at *3-4 (Patent Tr. & App. Bd. Feb. 27, 2013); *Ex parte Bright*, Appeal 2013-003725, 2013 WL 663563, at *2-3 (Patent Tr. & App. Bd. Feb. 21, 2013); *Ex parte Chu*, Appeal 2011-011442, 2013 WL 574284, at *2-3 (Patent Tr. & App. Bd. Feb. 5, 2013); *Ex parte Pyka*, Appeal 2010-

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005667, 2012 WL 6772010, at *2-3 (Patent Tr. & App. Bd. Dec. 31, 2012); *Ex parte Kimura*, Appeal 2010-010869, 2012 WL 6114315, at *3-4 (Patent Tr. & App. Bd. Nov. 27, 2012).

Recent opinions from the Federal Circuit and from the Northern District of California have also applied Section 112 to reject claims that include negative limitations when the specification lacks written description support. *See In re Bimeda Research & Development Ltd.*, 724 F.3d 1320, 1323-24 (Fed. Cir. 2013) (finding that the negative limitation “is not supported in the disclosure as originally filed”); *Tse v. Google, Inc.*, Nos. C 13-0194, 13-1204, WL 6502478, at *3-6 (N.D. Cal. Dec. 11, 2013) (finding that there is nothing in the original disclosure that conveys to a skilled artisan that the applicant was in possession of the “no-charge” negative limitation).

As the law of written description is applied in *Santarus* and its progeny, where a claim expressly contains a negative limitation, the specification must show that the applicant possessed such an invention when the application was filed. In the case of the '873 patent, the applicant added the “without user input” limitations during prosecution to distinguish the claims from the prior art, but there is no indication in the specification that the inventor was in possession of an invention that excluded “user input via the second device” at the time the application was filed. Accordingly, it is determined that each asserted claim of the '873 patent is invalid under 35 U.S.C. § 112, ¶ 1.

3. Indefiniteness

Respondents allege that the device claims, 23, 30, 34, 37, and 45, of the '873 patent are invalid under §112, ¶ 2 as indefinite. In particular, Respondents allege that the “without user input” limitation renders the claims indefinite. *See, e.g.*, RX-0460C.066., RX-0788C (Almeroth WS and errata) Q/A 317. It is alleged that “one of ordinary skill in the art cannot determine

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whether an accused ‘device for selecting a media item’ infringes without also looking at the selected ‘second device’ . . . to determine whether any ‘user input via the second device’ is required.” *See id.* However, a claim is not indefinite unless the claims do not, when “viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, No. 13-369, at 11 (June 2, 2014).

Here, the evidence shows that a person of ordinary skill in the art would consider the claim language amenable to construction following a review of the claim language itself in view of the specification and prosecution history. The ’873 device claims are directed to a first device (*e.g.*, a mobile device) configured to facilitate directing a second device to receive media without user input at the second device. Inasmuch as Dr. Loy understood the claims to the extent he was able to formulate infringement opinions with respect to the accused products demonstrates that a person of ordinary skill in the art would be informed about the scope of the invention with reasonable certainty.

Therefore, Respondents have not shown by clear and convincing evidence that the asserted ’873 claims are invalid for indefiniteness.

4. Validity Analysis in View of the Prior Art

Although it was determined above that the asserted claims of the ’873 patent are invalid for lack of a written description under 35 U.S.C. § 112, ¶ 1, the record evidence regarding anticipation and obviousness of these claims is summarized below for completeness. As discussed below, based on the parties’ arguments and the record evidence, there would be no impediment to finding the asserted claims invalid for anticipation and/or obviousness if the

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patent disclosure adequately conveyed to a person having ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date.

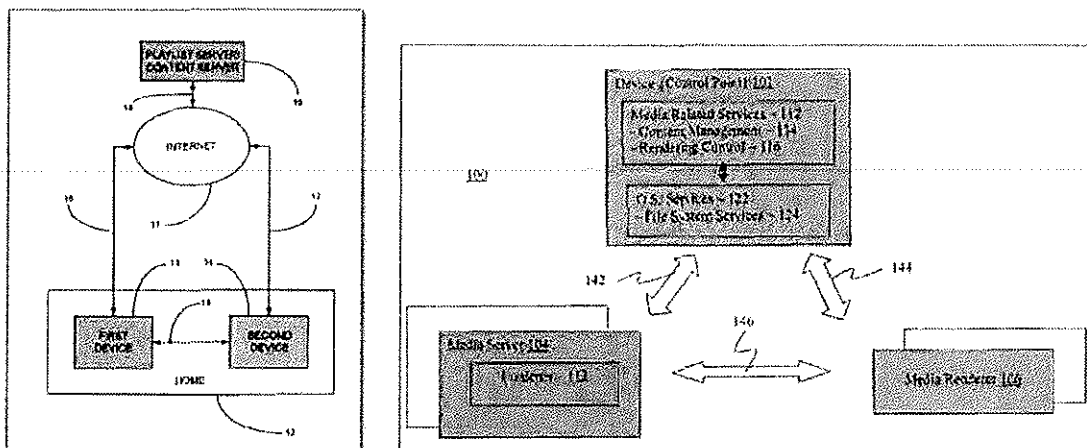
a. Priority Date

The '873 patent is a continuation of Application No. 10/840,109, which was filed on May 5, 2004, and ultimately issued as the '323 patent. *See* JX-0003 ('873 patent). The priority date for the '873 patent is therefore May 5, 2004. *See id.*

b. Weast – Anticipation of Claims 1, 5, 8, 17, 22, 23, 30, 34, and 37

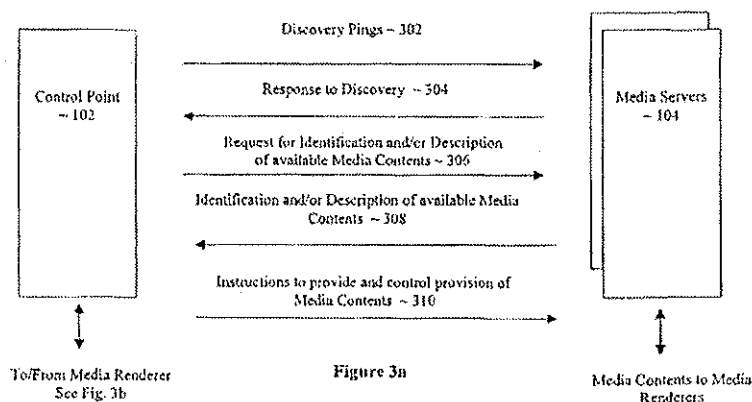
U.S. Patent No. 7,454,511 (“Weast”), titled “Visibility of UPnP Media Renderers and Initiating Rendering via File System User Interface,” was filed on May 29, 2003. *See* RX-0075 (Weast). Weast qualifies as prior art to the '873 patent under § 102(e).

Weast describes an implementation of the UPnP AV Architecture. Weast discloses “a user friendly technique to employ UPnP media renderers to render media content available from UPnP media servers.” *Id.* at col. 1, lns. 8-10. The UPnP A/V Media Server provides media contents, the UPnP A/V Media Renderers play the provided media contents, and the control point controls the cooperation between the complying media servers and the complying media renderers. *Id.* at col. 1, lns. 40-46. The control point may be “a desktop computer, a laptop computer, a tablet computer, a palm-sized computing device, a PDA, a set-top box, an entertainment center controller, a wireless mobile phone, and so forth.” *Id.* at col. 5, lns. 10-15. The 3-box architecture disclosed in the '873 patent (below, left) is identical to the architecture disclosed in Weast (below, right):



RDX-0004.005 (JX-0003 ('873 patent) FIG. 1); RDX-0005.003 (RX-0075 (Weast) at Fig. 1).

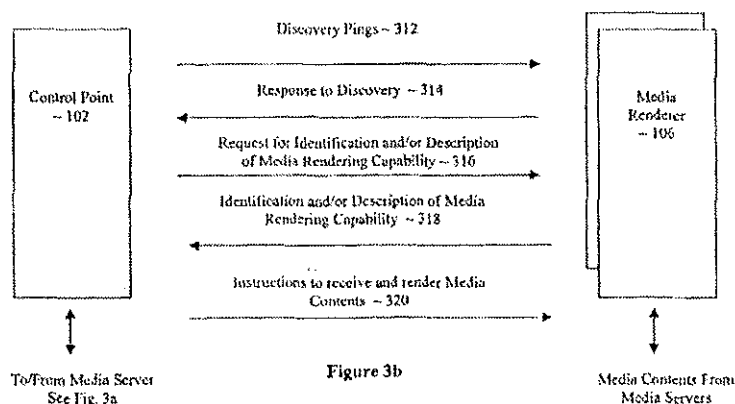
The communication protocols employed by the control point to interact with and control UPnP media servers and UPnP renderers are depicted in various figures in the Weast patent. As shown in Figure 3a, the control point requests an identification of media content and the corresponding metadata from a UPnP media server, and the UPnP media server provides the requested identification of media content and metadata to the control point:



Id. at Fig. 3a elements 306, 308; *see also id.* at col. 5, lns. 29-39. The control point receives information relating to the available media content and displays it to the user via a user interface on the control point. *See id.* at col. 5, lns. 40-44; Fig. 4a. As shown in Figure 3b, a control point

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discovers the presence of UPnP media renderers in a network domain by issuing discovery pings, and the media renderers respond to the control point with description information:



Id. at Fig. 3b elements 312, 314; *see also id.* at col. 5, ln. 59 – col. 6, ln. 6; Fig. 5b. The control point displays this information to a user via the control point user interface. *See id.* at col. 6, lns. 7-11.

According to Weast, a user may use the control point to select the media content and the media renderer on which the content is to be played, and the control point instructs the applicable renderer to receive and render the selected media content from the media server. *See id.* at Fig. 6b; Fig. 5b; col. 6, ln. 19-23; Fig. 3b element 320. Thereafter, the control point operates as a remote control for the rendering device by, for example, pausing or stopping playback and adjusting the volume. *See id.* at col. 8, lns. 53-64.

Through his direct witness statement, Dr. Almeroth testified that Weast anticipates asserted claims 1, 5, 8, 17, 22, 23, 30, 34, and 37 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 150-210. BHM's expert, Dr. Loy, did not dispute that Weast discloses the vast majority of the limitations recited in these claims. *See* CX-1401C (Loy RWS) Q/A 107-19. Dr. Loy disputes that Weast discloses the following limitations:

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- “receiving, on the first device, a playlist” and “selecting at least one media item identifier from the received playlist” (claim 1, and similar “playlist” limitations in other asserted claims); and
- “directing the at least one second device to send information representative of the at least one media item name to a content server” (claim 23).

See id. The disputed limitations are discussed below.

BHM does not dispute that Weast discloses a “playlist” under the adopted construction or the construction by Staff. BHM contends that Weast does not disclose a “playlist” under BHM’s proposed construction, which defines the term as “a list referencing media items arranged to be played in a sequence.”

Weast discloses that a control point requests an identification of media items available from the media server, along with corresponding metadata describing the available media items. *See* RX-0075 (Weast) at col. 5, lns. 29-35; Fig. 3a. The control point then receives the identification of media and corresponding metadata from the media server, which may include information such as the title, size, version, date of creation, media type, and artist of the media, and displays the information to the user via a user interface on the device. *See id.* at col. 5, lns. 36-47; Almeroth Tr. 662. Figure 4a in Weast (at right) is an example of the music playlist received by the control point, which consists of multiple songs.

Name	Size	Type	Date
Title1	123KB	Music	09/15/00
Title2	245KB	Music	08/20/01
...			
Title3	367KB	Music	02/05/02

Figure 4a

Applying the methodology that Dr. Loy applies for purposes of infringement, Weast discloses a “playlist” under BHM’s proposed construction. Specifically, the list of songs disclosed in Weast

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is received by the control point from the media server and is arranged to be played in a sequence determined, for example, by song title. *See* RX-0075 (Weast) at col. 8, lns. 34-64; Fig. 7; RX-0460C (Almeroth DWS) Q/A 165-67, 175.

BHM's expert testified that Weast fails to disclose a "playlist" under BHM's proposed construction because the content displayed at the control point resembles a "Windows-type interface that merely lists the files available," the "files could be sorted, for example, by the date column, or the size column," and such a list does not "enable, or intend, playback in sequence." CX-1401C (Loy RWS) Q/A 107. Dr. Loy's opinion conflicts with his opinions on infringement, in which he pointed to music files stored in a Windows Explorer folder as evidence that Respondents' accused mobile devices satisfy the "receiving a playlist" limitation under BHM's proposed construction. *See* RX-0671C (Lipoff RWS) Q/A 193-203; CPX-0141C (Test Video 502); Loy Tr. 406-423. Moreover, the list of songs received by the control point in Weast is "capable of" being played in the sequence in which they are listed, which satisfies one of Dr. Loy's interpretations of BHM's construction. *See* Loy Tr. 417; *see also* RX-0460C (Almeroth DWS) Q/A 175. To the extent Dr. Loy testified that loading the songs into a media player is an additional requirement of BHM's construction, Weast also discloses this feature. *See* Loy Tr. 417, 500; CDX-0132.061. Figure 7 discloses an embodiment wherein the user may drag and drop songs into a "Music Player" folder for a rendering device, which causes the songs to be "queued" in a specific order for the renderer to play. *See* RX-0075 (Weast) at col. 8, lns. 34-64; Fig. 7; Loy Tr. 1732-1734.

Weast states that the media renderer "pulls" the content item from the media server in response to an instruction received from the control point. *See* RX-0075 (Weast) at col. 5, lns. 50-57; col. 6, lns. 19-23; Fig. 3b element 320. Therefore, one of ordinary skill would understand

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that the media renderer sends information representative of the selected media item to the media server so that the server can retrieve the item from its memory and transfer the content to the renderer. *See* RX-0460C (Almeroth DWS) Q/A 194. BHM's expert Mr. Zatkovich testified that one of ordinary skill would understand that in a "pull" operation, the renderer makes a request to the media server for the media item that it should receive, and that the request includes "an identifier" for the item. Zatkovich Tr. 1564-1566; *see also* RX-0142 (ContentDirectory:1) (UPnP_000215) (a request by a renderer for the content item includes a URI for the media item).

BHM's other expert Dr. Loy testified differently. Dr. Loy stated, "Weast makes no mention as to which device sends the media item identifier to the media server," and testified that the control point might do so instead. *See* CX-1401C (Loy RWS) Q/A 114. However, this hypothetical scenario describes a "push" protocol, wherein the media server receives a description of the selected item from a control point, retrieves the item, and transfers the content to the renderer. *See* RX-0460C (Almeroth DWS) Q/A 119; Zatkovich Tr. 1564-1565. As noted, Weast expressly discloses the use of a "pull" protocol, wherein the renderer receives a description of the selected item from a control point and makes a request to the media server for the content by passing the description of the selected content to the server. *See* RX-0460C (Almeroth DWS) Q/A 194; Zatkovich Tr. 1564-1566.

As for the additional limitations recited in asserted claims 1, 5, 8, 17, 22, 23, 30, 34, and 37 of the '873 patent, Dr. Almeroth provided an element-by-element invalidity analysis for each of these asserted claims. *See* RX-0460C (Almeroth DWS) Q/A 157-175 (claim 1), 176 (claim 5), 177-178 (claim 8), 182-183 (claim 17), 185 (claim 22), 186-195 (claim 23), 205-206 (claim 30), 207 (claim 34), 208 (claim 37).

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c. UPnP AV 1.0 – Anticipation of Claims 1, 8, 16, 17, 19, 22, 23, 30, 37, and 45

The UPnP AV Architecture specification (“UPnP AV 1.0”), dated June 25, 2002, “defines the general interaction between UPnP Control Points and UPnP AV devices” in scenarios involving the flow of content from one device to another device over a network. RX-0140 (UPnP AV 1.0) (UPnP_000051-052). “[T]hree distinct entities are involved: the Control Point, the source of the media content (called the ‘Media Server’), and the sink for the content (called the ‘Media Renderer’).” *Id.* (UPnP_000053). The Control Point “coordinates and manages the operation of the Media Server and Media Renderer as directed by the user (e.g., play stop, pause) in order to accomplish the desired task (e.g., play “MyFavorite” music).” *Id.* (UPnP_000054). UPnP AV 1.0 explains that the Control Point device may be a “wireless PDA-like device with a small display,” while the Media Renderer may be a “TV, stereo, network-enabled speakers, MP3 players,” etc. *Id.* (UPnP_000053, UPnP_000054). UPnP AV 1.0 depicts a 3-box architecture in Figure 3 (illustrated below). *Id.* (UPnP_000053).

According to UPnP AV 1.0, “the Media Server contains (entertainment) content that the user wants to render (e.g., display or listen to) on the Media Renderer.” *Id.* Using the Control Point, a user may “enumerate (i.e., browse or search for) content items that are available for the user to render.” *Id.* (UPnP_000054-055). For example, using the “Browse” action, a Control Point

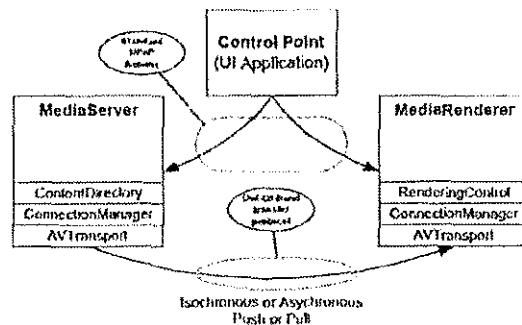


Figure 3

obtains identification of and metadata about the various content items that are available on the Media Server, including properties such as name or artist, and this playlist is then displayed on

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the user interface (“UI”) of the Control Point. *See id.* “The user interacts with the Control Point’s UI to locate and select the desired content on the Media Server and to select the target Media Renderer.” *Id.* (UPnP_000053).

After a content item has been selected, the Control Point “initiates the transfer of the content” from the Media Server to the Media Renderer, which causes the Media Server to transfer the content directly to the Media Renderer using any compatible transfer protocol and data format. *See id.* (UPnP_000054, UPnP_000052, UPnP_000063). As shown above in Figure 3, examples of such transfer protocols include a “push” by a Media Server or a “pull” by a Media Renderer. *Id.* (Fig. 3). When a “pull” protocol is used, the Control Point provides the Media Renderer with a string of characters, also known as a URI, that identifies the selected media item and the address of the device on the network from which the media item can be obtained. *Id.* (UPnP_000057) (“invoke the SetAVTransportURI() action to identify the content item that needs to be transferred”); Loy Tr. 448-449, 450. The Media Renderer uses the URI that it received from the Control Point to request the item from the Media Server (*e.g.*, using an HTTP-GET request), and the content item is streamed or otherwise transferred from the Media Server to the Media Renderer to be played. *See id.* (UPnP_000053, UPnP_000063).

The Control Point may then operate as a remote control for the Media Renderer. For example, UPnP AV 1.0 states that a user may use the Control Point “to control how content is rendered (*e.g.*, Brightness, Contrast, Volume, Mute, etc.)” *Id.* (UPnP_000055).

Through his direct witness statement, Dr. Almeroth has provided evidence that UPnP AV 1.0 anticipates asserted claims 1, 8, 16, 17, 19, 22, 23, 30, 37 and 45.⁵⁰ *See* RX-0460C (DWS

⁵⁰ It is argued that UPnP AV 1.0 renders these claims obvious if the ALJ adopts Respondents and Intervenor’s proposed construction of “device identifier,” but that under all other proposed

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Almeroth) Q/A 85-144. BHM's expert, Dr. Loy, did not dispute that UPnP AV 1.0 discloses the majority of the limitations recited in these claims. *See* CX-1401C (Loy RWS) Q/A 67-82. Dr. Loy disputes that UPnP AV 1.0 discloses the following limitations:

- “displaying, on a first device, at least one device identifier identifying a second device” and “receiving user first input selecting the at least one device identifier” (claim 1, and similar “device identifier” limitations in other asserted claims);
- “receiving, on the first device, a playlist” and “selecting at least one media item identifier from the received playlist” (claim 1, and similar “playlist” limitations in other asserted claims);
- “requesting, by the second device, the song identified by the song identifier from a content server” (claim 19); and
- “directing the at least one second device to send information representative of the at least one media item name to a content server” (claim 23).

See id. The disputed limitations are discussed below.

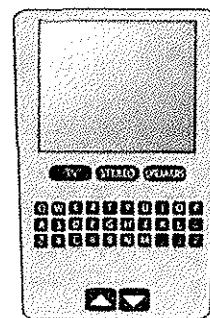
UPnP AV 1.0 states that “[t]he user *interacts with the Control Point's UI* to locate and select the desired content on the Media Server and *to select the target Media Renderer.*”

RX-0140 (UPnP AV 1.0) (UPnP_000053) (emphases added). The ability to select a Media Renderer using the UI of the Control Point, which may take the form of a “wireless PDA-like device with a small display,” discloses to one of ordinary skill the display and selection of a device identifier on the Control Point. *Id.*; *see* RX-0460C (Almeroth DWS) Q/A 92, 106.

constructions for the agreed-upon and disputed terms, these claims are anticipated by UPnP AV 1.0. *See* RX-0460C (Almeroth DWS) Q/A 95.

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Faced with this disclosure, BHM's expert testified regarding a scenario in which a user might select a target Media Renderer using the Control Point's UI in a manner that would not involve the display of a device identifier on the Control Point. *See* CX-01401C (Loy RWS) Q/A 70. Specifically, Dr. Loy discussed a hypothetical Control Point with a UI that includes buttons that are each dedicated to a renderer (e.g., a button with "TV" printed on it, and a button with "Stereo" printed on it), and wherein the selection of the Media Renderer takes place via the press of a button. *See id.*; CDX-0132.0023 (Loy Demonstrative) (illustrated at right). UPnP AV 1.0 does not envision or discuss such a Control Point device, and Dr. Loy does not point to real-world examples in which such a UI has been implemented on a Control Point. Nevertheless, Dr. Loy's hypothetical scenario would satisfy the claim limitation. In the case of a Control Point that includes buttons that each identify a different renderer device, the buttons would literally display, on a first device, at least one device identifier identifying a second device and also may receive user input selecting the device identifier.



BHM does not dispute that UPnP AV 1.0 discloses a "playlist" under the adopted construction and that proposed by the Staff. BHM argues only that UPnP AV 1.0 does not disclose a "playlist" under BHM's construction, which defines the term as "a list referencing media items arranged to be played in a sequence."

UPnP AV 1.0 states that "[t]he user **interacts with the Control Point's UI to locate and select the desired content** on the Media Server." RX-0140 (UPnP AV 1.0) (UPnP_000053) (emphasis added). The "Content Directory Service" permits the Control Point to identify, retrieve and display content items that are available on the Media Server for the user to play

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using a “Browse” or “Search” action. *See id.* (UPnP_000054-055). The Media Server may store a variety of entertainment content, including music for playback on network-enabled speakers. *See id.* (UPnP_000053-054). Elsewhere, UPnP AV 1.0 discloses that the Control Point may receive playlists of content that are customized to the user’s preferences, such as “MyFavorite” music. RX-0140 (UPnP AV 1.0) (UPnP_000054).

Using the methodology that Dr. Loy employed in his infringement analysis, UPnP AV 1.0 discloses a “playlist” under BHM’s proposed construction. *See* RX-0460C (Almeroth DWS) Q/A 98, 106; Almeroth Tr. 660-661. In particular, Dr. Loy identified the same UPnP-based Content Directory “Browse” action, which retrieves an identification of and metadata about the available content items stored on the server, as evidence of infringement. *See* CX-1068C (Loy DWS) Q/A 260 (identifying the “plurality of media item identifiers representing songs available on the BHM-02 computer”), 272 (“mobile device makes a ContentDirectory request to the content server”). Accordingly, to the extent Dr. Loy opined that the “Browse” action and receipt of music content is evidence of infringement, that same operation is disclosed in UPnP AV 1.0.

After a content item is selected at the Control Point, UPnP AV 1.0 discloses that the Control Point “initiates” the transfer of content from the Media Server to the Media Renderer. RX-0140 (UPnP_000054). The content may be transferred using a “pull” protocol, such as HTTP-GET. *See id.* (UPnP_000063-065, Fig. 3). In this circumstance, the Control Point invokes the “SetAVTransportURI() action,” which causes the Control Point to send the Media Renderer a “URI” (*i.e.*, a string of characters that identifies the selected content as well as the address of the device on the network from which that content can be obtained). *See id.* (UPnP_000057, UPnP_000063). UPnP AV 1.0 discloses that the Media Renderer uses the URI

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received from the Control Point to make a request to the Media Server for the selected content item. *See id.*; *see also* RX-0460C (Almeroth DWS) Q/A 100, 119, 130.

Dr. Loy identified the same “SetAVTransportURI” action to establish that the accused DLNA-compliant video display devices request a media item from a content server. *See* CX-1068C (Loy DWS) Q/A 162, 205, 292; Loy Tr. 448-449, 450. Yet, with respect to a validity analysis, Dr. Loy disputes that the same operation in UPnP AV 1.0 performs the same function.

As for the additional limitations recited in asserted claims 1, 8, 16, 17, 19, 22, 23, 30, 37, and 45 of the ’873 patent, Dr. Almeroth provided an element-by-element invalidity analysis for each of these asserted claims. *See* RX-0460C (Almeroth DWS) Q/A 92-106 (claim 1), 109-110 (claim 8), 111-113 (claim 16), 114-117 (claim 17), 118-121 (claim 19), 122 (claim 22), 123-130 (claim 23), 139-140 (claim 30), 142 (claim 37), 143 (claim 45).

d. UPnP Version 1.0 – Anticipation of Claims 1, 8, 16, 17, 19, 22, 23, 30, 37, and 45

The UPnP AV 1.0 reference, discussed above, is part of an inter-related collection of documents that Respondents argue are meant to be read together and comprise Version 1.0 of the UPnP AV Standard. *See* Resps. Br. at 85. This set of documents, *i.e.*, UPnP AV 1.0, MediaRenderer:1, ContentDirectory:1, and AVTransport:1 (hereinafter, “UPnP Version 1.0”), provides additional details regarding the functionalities of the UPnP Control Point, Media Server, and Media Renderer. For example, the ContentDirectory:1 Service Template defines the Content Directory Service, which allows UPnP devices to locate content stored on a Media Server, including songs, movies, and pictures. *See* RX-0142 (ContentDirectory:1) (UPnP_000167). The AVTransport:1 Service Template defines a service for enabling “control over the transport of audio and video streams,” which may be used to control media devices such

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as CD players, VCRs and MP3 players. RX-0146 (AVTransport:1) (UPnP_000075). The UPnP MediaRenderer:1 Device Template defines, among other things, identification information that a Media Renderer provides to the Control Point during the UPnP *Discovery* phase. See RX-0143 (MediaRenderer:1) (UPnP_000260).

It is argued that the UPnP Version 1.0 documents should be treated as a single anticipatory prior art reference because they all were developed by the same UPnP AV working committee, relate to the same version of the UPnP AV Standard, were made publicly available by the UPnP Forum on the same day via the same web site, and share overlapping individual authors. Resps. Br. at 86 (citing JX-0081 (Murray Dep.) at 23-27, 27-28). The UPnP AV 1.0 document references the additional “UPnP AV Device and Service templates” in the Introduction, and discusses the Content Directory Service, the AV Transport Service, and the Media Renderer Device Template in Section 5. See RX-0140 (UPnP AV 1.0); see also RX-0075 (Weast) at col. 1, lns. 36-46; col. 2, lns. 44-56 (describing the UPnP AV Architecture Version 1.0 specifications). The evidence demonstrates that persons of ordinary skill in the art, including engineers at Samsung, that make products that can operate as control points and renderers and that may be used with each other or with other manufacturer’s products, would look to the entirety of the disclosure to ensure that their products are compliant with the standards. See RX-0676C (Cho RWS) Q/A 23-27. UPnP AV 1.0 describes the overall architecture for the standard and cross-references the accompanying Device and Service Templates, while the ContentDirectory:1 Service Template, AVTransport:1 Service Template, and MediaRenderer:1

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Device Template each provide additional details regarding the features and protocols of the UPnP AV 1.0 specification.⁵¹

Through his direct witness statement, Dr. Almeroth has provided evidence that UPnP Version 1.0 anticipates asserted claims 1, 8, 16, 17, 19, 22, 23, 30, 37, and 45 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 145-149. According to Dr. Almeroth, in addition to the disclosures provided by UPnP AV 1.0, the additional UPnP Version 1.0 documents provide the following additional disclosures relating to the asserted claims.

The MediaRenderer:1 Device Template provides details regarding the “device identifiers” described in UPnP AV 1.0. For example, it states that a media renderer may be identified by several different device characteristics, including friendly name, manufacturer name, model name or number, serial number, universally unique identifier, or Universal Product Code. *See* RX-0143 (MediaRenderer:1) (UPnP_000260). Dr. Almeroth therefore argues that UPnP Version 1.0 discloses a “device identifier” under any of the proposed constructions for that term, including the adopted construction, which requires a “device identifier” that uniquely identifies the second device. *See* RX-0460C (Almeroth DWS) Q/A 147.

The ContentDirectory:1 and AVTransport:1 documents provide support regarding the receipt of a “playlist” by a Control Point. For example, ContentDirectory:1 states that a Control Point may retrieve a playlist containing media items in a music album, and explains that an album is “typically a fixed published sequence of songs,” such as an audio CD. RX-0142

⁵¹ It is argued that, “[r]egardless of whether the UPnP Version 1.0 documents are treated as a single reference for purposes of anticipation, one of ordinary skill in the art would have been motivated to combine UPnP AV 1.0 with UPnP ContentDirectory, UPnP AVTransport, and/or UPnP MediaRenderer.” *Resps. Br.* at 87 n.13. The evidence shows UPnP AV 1.0 explicitly references the other documents, the subject matter is interrelated, and one of ordinary skill would be motivated to consult the additional UPnP Version 1.0 specifications to obtain more detailed information about the pertinent protocols and services. *See id.*

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(ContentDirectory:1) (UPnP_000246). It also states that the Control Point may retrieve a “playlistItem,” which represents a “playable sequence of resources.” *Id.* The AVTransport:1 Service Template, moreover, explains that the Control Point may retrieve content from the MediaServer in several formats, such as a single song, or a collection of contents, such as a “CD disc or playlist.” RX-0146 (AVTransport:1) (UPnP_000108).

During the hearing, BHM argued that Respondents and Intervenor cannot prove that the UPnP Version 1.0 documents qualify as prior art to the '873 patent under 35 U.S.C. § 102. It is argued that “[t]his argument was not set forth in BHM’s prehearing brief, as required by Ground Rule 7.c, and accordingly, the argument is waived.” Resps. Br. at 88. Even if BHM did not waive this argument, Respondents adduced evidence, summarized below, showing that the UPnP Forum published the UPnP Version 1.0 documents on its public website (<http://www.upnp.org>) on June 26, 2002, and made them available to hundreds of members of the UPnP Forum before that date. *See* RX-0140 (UPnP AV 1.0); JX-0081 (Murray Dep.) at 23-27, 27-28, 49-50. It is therefore argued that the UPnP Version 1.0 documents qualify as prior art to the '873 patent under § 102(b). Resps. Br. at 89.

Upon application by the Samsung Respondents, the administrative law judge issued a Subpoena *Duces Tecum* and *Ad Testificandum* to the UPnP Forum. In response to the subpoena, the UPnP Forum produced from its official files “true and correct copies” of various UPnP specifications that bear a date of June 25, 2002, including those marked as RX-0140 (UPnP AV 1.0), RX-0142 (ContentDirectory:1), RX-0143 (MediaRenderer:1), and RX-0146 (AVTransport:1) (collectively, “UPnP Version 1.0”). JX-0081 (Murray Dep.) at 13-14. These documents are deemed authentic under Ground Rule 9.j. The UPnP Forum also designated its Executive Director, Aja Murray, to testify at deposition concerning topics set forth in the

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subpoena, including the public availability of the UPnP Version 1.0 documents. Ms. Murray has worked for the UPnP Forum for approximately six years and is familiar with UPnP's general procedures, policies, and record-keeping practices. ~~See id. at 9-11, 11-12.~~ At the deposition, Ms. Murray testified that the UPnP Forum published the UPnP Version 1.0 documents (*i.e.*, the versions of these documents entered as exhibits in this investigation) on its public website on June 26, 2002:

Exhibit 4, this is going to be a series of documents all of which relate to UPnP Version 1.0 and all of which are dated June 25th, 2002. The Bates range for these documents are UPnP_000049-UPnP_000338.

[C]an you tell, based on your review of the documents when, if at all, the various documents that make up Exhibit 4 were made publicly available on the UPnP website?

They were made publicly available on June 26th, 2002.

JX-0081 (Murray Dep.) at 23, 27-28, 49-50.

Contemporaneous documents support the proposition that UPnP Version 1.0 was not only in the public domain well before May 2004, but also that persons of ordinary skill had access to and understood the disclosures provided therein. For example, a July 2003 article titled "Overview of UPnP AV Architecture" discusses the UPnP Version 1.0 documents in detail and cites to UPnP's public website as the source for the information. *See* RX-0166 (Overview of UPnP AV Architecture) (882PRIOR00031073 n.[3]). The Weast patent, filed on May 29, 2003, defines certain terms used in the patent (*e.g.*, "control point," "media server," "media renderer") by referencing their use in the UPnP AV Architecture Specification Version 1.0 (RX-0140) and related specifications, which it states were "available at the time of filing the present application." *See* RX-0075 (Weast) at col. 2, lns. 50-56. Martin Weel, the named inventor of the

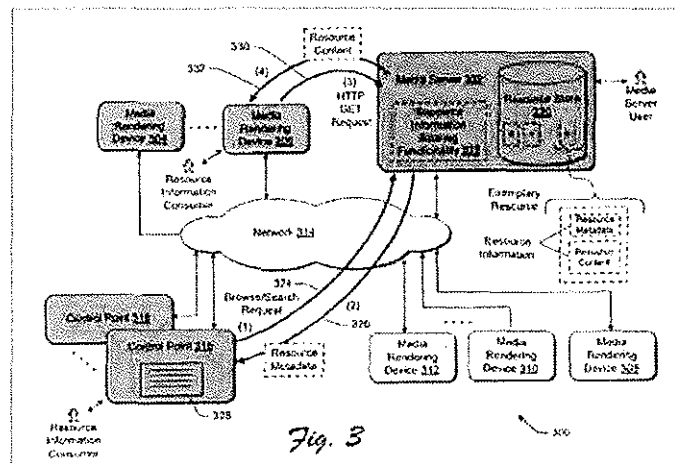
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'873 patent, testified at his deposition that the UPnP standards, including the UPnP AV Architecture Specification Version 1.0 (RX-0140), were “publicly available” and that he reviewed them in or around 2002. *See* JX-0100C (Weel Dep.) at 58-59, 95, 175-176; CX-1401C (Loy RWS) Q/A 33 (affirming that Mr. Weel became aware of the UPnP standards when they were made public).

e. Encarnacion – Anticipation of Claims 1, 16, 17, 19, 23, 27, 30, and 45

U.S. Patent No. 7,668,939 (“Encarnacion”), titled “Routing of Resource Information in a Network,” was filed on December 19, 2003. *See* RX-0082 (Encarnacion). Encarnacion qualifies as prior art to the '873 patent under § 102(e).

Encarnacion describes an implementation of the UPnP AV Architecture. Encarnacion cites to the UPnP Forum’s web site (<http://upnp.org/>) as providing “more detailed information regarding the UPnP architecture and related topics.” *Id.* at col. 3, lns. 1-3. Encarnacion relates to “a strategy for selectively routing metadata and media content to recipients via a local network, such as a home network.” *Id.* at col. 1, lns. 20-24. According to Encarnacion, a UPnP network comprises several types of devices, including “one or more control point entities for coordinating the transfer of information from the source entity(ies) to the recipient entity(ies).” *Id.* at col. 5, lns. 19-25. Encarnacion explains that “[e]xemplary media servers can include various types of computers, various kinds of jukeboxes, and so on”;



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“[e]xemplary rendering devices can include various types of computers, stereo system, speakers, TVs, hand-held audio players, and so on”; and “[a]n exemplary control point may be implemented using various types of computers, Personal Digital Assistants (PDAs), application specific logic modules, and so on.” *Id.* at col. 8, lns. 4-23. The exemplary UPnP architecture is shown in Figure 3 (illustrated above, at right). RDX-0006.004 (RX-0082 (Encarnacion) at Fig. 3 annotated).

As shown above, Encarnacion discloses that a consumer may use a control point to issue a browse/search request to a media server and receive from the media server information pertaining to the resources stored thereon. *See* RX-0082 (Encarnacion) at Fig. 3 elements 324, 326; *see also id.* at col. 8, lns. 51-62; col. 13, lns. 1-20; col. 13, ln. 56 – col. 14, ln. 21; col. 25, lns. 11-48. Using the control point, the user may select content from the list retrieved from the media server for presentation at a selected rendering device. *See id.* at col. 8, lns. 62-65; col. 14, lns. 31-36; col. 25, lns. 48-55. The control point then sets up the transfer of the content from the media server to the selected rendering device by supplying a resource locator (*e.g.*, a “URL”) to the selected rendering device. *See id.* at col. 8, ln. 65 – col. 9, ln. 4; col. 14, lns. 36-42; col. 25, lns. 48-55. The selected rendering device submits this resource locator to the media server, which uses the resource locator to locate the selected resource content and send the selected resource content back to the rendering device. *See id.* at col. 8, ln. 65 – col. 9, ln. 4; col. 14, lns. 42-63.

Through his direct witness statement, Dr. Almeroth has provided evidence that Encarnacion anticipates asserted claims 1, 16, 17, 19, 23, 27, 30, and 45.⁵² *See* RX-0460C

⁵² It is argued that, in the event the administrative law judge adopts Respondents and Intervenor’s proposed construction of “device identifier,” Encarnacion renders these claims obvious.

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(Almeroth DWS) Q/A 211-267. BHM's expert, Dr. Loy, does not dispute that Encarnacion discloses the majority of the limitations recited in these claims. *See* CX-1401C (Loy RWS) Q/A 123-35. Dr. Loy disputes that Encarnacion discloses the following limitations:

- “displaying, on a first device, at least one device identifier identifying a second device” and “receiving user first input selecting the at least one device identifier” (claim 1, and similar “device identifier” limitations in other asserted claims); and
- “receiving user second input selecting at least one media item identifier from the received playlist” (claim 1, and similar “selecting” limitations in other asserted claims).

See id. The disputed limitations are discussed below.

Encarnacion states that using a control point, a user may investigate the content stored on the media server and “select resource content for presentation **at a selected rendering device.**” RX-0082 (Encarnacion) at col. 8, lns. 62-67 (emphasis added); *see also id.* at col. 14, lns. 31-47. Encarnacion discloses to one of ordinary skill that available media renderers are displayed to a user for selection via the control point, otherwise there would be no way for the control point to perform the described selection of a rendering device for the content's presentation. *See* RX-0460C (Almeroth DWS) Q/A 216-218. Figure 9 of Encarnacion shows one example of how a user interface can display a list of available media renderers (although this particular example is on a media server display, not a control point display). RX-0082 (Encarnacion) at Fig. 9; col. 43, ln. 29 – col. 44, ln. 9.

Otherwise, it is argued that these claims are anticipated by Encarnacion under all other proposed constructions for the agreed-upon and disputed terms. *See* RX-0460C (Almeroth DWS) Q/A 220.

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Encarnacion discloses a “playlist” under each of the proposed constructions, including under BHM’s requirement of songs “arranged to be played in a sequence.” Encarnacion even uses the term “playlist” to refer to a list of songs received by the control point from the media server. *See* RX-0082 (Encarnacion) at col. 14, lns. 8-21. Encarnacion also discloses that the user of the control point may select a media item from the received playlist. For example, it states that using the control point’s UI, a user may investigate the content that is available on the media server and “can select resource content associated with a resource for presentation at a selected rendering device.” *Id.* at col. 8, lns. 54-65; *see also id.* at col. 14, lns. 31-35; col. 25, lns. 48-55; col. 37, lns. 36-45. The evidence shows that one of ordinary skill would understand that Encarnacion discloses selecting a media item from the playlist. *See* RX-0460C (Almeroth DWS) Q/A 226.

With respect to the additional limitations recited in asserted claims 1, 16, 17, 19, 23, 27, 30, and 45 under each of the proposed claim constructions, Dr. Almeroth has provided an element-by-element invalidity analysis for each of these asserted claims. *See* RX-0460C (Almeroth DWS) Q/A 215-233 (claim 1), 238 (claim 16), 239-240 (claim 17), 241 (claim 19), 243-252 (claim 23), 253-261 (claim 27), 262-263 (claim 30), 266 (claim 45).

f. UPnP AV 1.0 – Obviousness of Claims 5, 27, and 34

i. UPnP AV 1.0 Alone

Respondents and Intervenor have provided evidence to show that UPnP AV 1.0 renders obvious claims 5, 27, and 34 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 107-08, 131-38, 141.

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ii. UPnP AV 1.0 Alone or in Combination with Weast

Dependent claims 5 and 34 specify that “the first device comprises a mobile phone.” Respondents and Intervenor provided evidence to show UPnP AV 1.0 renders obvious claims 5 and 34 alone or in combination with Weast.

UPnP AV 1.0 is “independent of any particular device type, content format, and transfer protocol.” RX-0140 (UPnP AV 1.0) (UPnP_000051). The specification is designed to be device agnostic so that the standard may be implemented in a wide array of devices manufactured by a range of companies. *See* RX-0460C (Almeroth DWS) Q/A 108. Dr. Almeroth testified that it would have been straightforward for one of ordinary skill to implement UPnP’s Control Point functionality on a mobile phone. *See id.* The industry was already moving in the direction of building into mobile phones the features used in laptop computers and PDA devices. *See id.* By the late 1990s and early 2000s, several companies released mobile phones with wireless-Internet capability, and phones began to appear on the market that had the ability to play files in either Windows Media or MP3 format. *See id.*

Weast expressly states that the UPnP Control Point may take the form of a mobile phone. *See* RX-0075 (Weast) at col. 5, lns. 10-15. Dr. Almeroth testified that one of ordinary skill would have been motivated to combine UPnP AV 1.0 with Weast, which itself describes an implementation of UPnP AV 1.0 and expressly references that standard, to gain a more complete understanding regarding the manner in which the UPnP AV Architecture may be implemented. *See* RX-0460C (Almeroth DWS) Q/A 108.

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iii. UPnP AV 1.0 Alone or in Combination with Encarnacion

Claim 27 of the '873 patent recites a method for directing a second device from a first device, including "sending, from the first device, at least one attribute of a playlist corresponding to a selected playlist name to a playlist server." Respondents and Intervenor provided evidence to show UPnP AV 1.0 renders obvious this limitation alone or in combination with Encarnacion.

UPnP AV 1.0 states that using the Content Directory Service, the Control Point may "Browse" content that is available on the server and, in response, the control point receives an identification of available content and associated metadata (*e.g.*, name, artist). *See* RX-0140 (UPnP AV 1.0) (UPnP_000055). Dr. Almeroth testified that one of ordinary skill would have understood from the disclosure in UPnP AV 1.0 that content may be stored on the server in multiple folders. Upon user selection of a particular folder (*e.g.*, MyMusic-Artist) the Control Point would send an indication of the selected folder to the Media Server and the Media Server responds with an identification of content in that folder. *See* RX-0460C (Almeroth DWS) Q/A 134. For example, the control point may discover that the media server has two albums by the artist Usher, each indicated by a separate folder entry. Upon selection of the first album folder, the control point sends an indication of this selection to the media server and the media server responds by providing the control point with a list of tracks in the first album. *See id.*

In addition, Encarnacion discloses sending an attribute of a playlist corresponding to a selected playlist name to a playlist server. Encarnacion states that a resource collection, such as a playlist, may have a resource locator associated therewith, which may be used to retrieve the playlist based on a request from the control point. *See* RX-0082 (Encarnacion) at col. 14, lns. 8-21, col. 37, lns. 6-17. Dr. Almeroth testified that one of ordinary skill would have been

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motivated to combine UPnP AV 1.0 with Encarnacion to gain a more complete understanding regarding the manner in which the UPnP AV Architecture may be implemented, and because both references concern media sharing among UPnP devices. *See* RX-0460C (Almeroth DWS) Q/A 134.

g. UPnP Version 1.0 – Obviousness of Claims 5, 27, and 34

Respondents and Intervenor have provided evidence to show that UPnP Version 1.0 renders obvious claims 5, 27, and 34 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 145-49.

Dr. Almeroth testified that, if the UPnP Version 1.0 documents are not treated as a single reference for purposes of anticipation, one of ordinary skill in the art would have been motivated to combine UPnP AV 1.0 with UPnP ContentDirectory, UPnP AVTransport, and/or UPnP MediaRenderer. *See* RX-0460C (Almeroth DWS) Q/A 148. The UPnP AV 1.0 document describes the general architecture and protocols for communications among a Control Point, Media Renderer, and Media Server. *See* RX-0140 (UPnP AV 1.0). The additional Version 1.0 documents, which were published on the UPnP Forum's public website on the same day and cross-reference one another, provide additional details about the UPnP Control Point, Media Renderer, Media Server, and related features and protocols described in UPnP AV 1.0. According to Dr. Almeroth, one of ordinary skill would have been motivated to combine the UPnP Version 1.0 documents to achieve a more complete understanding of the UPnP network or system. *See* RX-0460C (Almeroth DWS) Q/A 148.

Dr. Almeroth further testified that, for the same reasons applicable to UPnP AV 1.0, one of ordinary skill would conclude that UPnP Version 1.0 renders obvious claims 5 and 34 of the '873 patent in combination with Weast. He also testified that, for the reasons applicable to UPnP

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AV 1.0, one of ordinary skill would conclude that UPnP Version 1.0 renders obvious claim 27 of the '873 patent in combination with Encarnacion. *See id.* at Q/A 147-148.

h. Weast – Obviousness of Claims 16, 19, 27, and 45

Respondents and Intervenor have provided evidence to show that Weast renders obvious claims 16, 19, 27, and 45 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 179-81, 184, 196-204, 209.

i. Weast Alone or in Combination with UPnP AV 1.0 or Encarnacion

Dependent claims 16, 19 and 45 of the '873 patent each require the second device to “stream” the selected media content from the content server. *See* JX-0003 ('873 patent). The parties agree that the term “stream” means “playing a media item in real-time as it is received, which may include buffering the media item.” *See* RX-0404 (Joint List of Proposed Constructions) at 20.

Weast discloses that the control point instructs media renderers to pull and render media contents. *See* RX-0075 (Weast) at col. 6, ins. 19-23. Dr. Almeroth testified that, at the time of the purported inventions, one of ordinary skill would have been aware of the advantages associated with delivering content from a server to a media renderer via streaming, as opposed to downloading, such that media may be more quickly rendered for the user of the media renderer. *See* RX-0460C (Almeroth DWS) Q/A 179.

In addition, UPnP AV 1.0 and Encarnacion, which also describes the UPnP AV Architecture, disclose that the control point may direct a media renderer to stream a media item from a content server. *See* RX-0140 (UPnP AV 1.0) (UPnP_000055); RX-0082 (Encarnacion) at col. 14, ins. 50-59. Dr. Almeroth testified that one of ordinary skill would have been motivated

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to combine Weast with UPnP AV 1.0 or Encarnacion to gain a more complete understanding regarding the manner in which the UPnP AV Architecture may be implemented. *See* RX-0460C (Almeroth DWS) Q/A 179.

ii. **Weast Alone or in Combination with Encarnacion or Khedouri**

Claim 27 of the '873 patent recites a method for directing a second device from a first device, including "sending, from the first device, at least one attribute of a playlist corresponding to a selected playlist name to a playlist server." *See* JX-0003 ('873 patent).

Weast discloses that the control point interface may include file system entries displayed to the user in a tree-like structure, with each entry containing a list of media items. *See* RX-0075 (Weast) at Fig. 4a. The name of each of the displayed folders in the tree-like structure corresponds to the recited "playlist name," and may be selected by the user. *See* RX-0460C (Almeroth DWS) Q/A 198. Dr. Almeroth testified that one of ordinary skill would understand that upon user selection of a folder, the control point sends an indication of the selected folder to the media server and the media server would return to the control point a list of media items within the selected folder, in similar fashion to the way in which a file manager allows a user to navigate through a hierarchy of files or folders stored on his or her personal computer. *See* RX-0460C (Almeroth DWS) Q/A 198; Almeroth Tr. 660-662.

Other prior art references, such as Encarnacion and Khedouri, also teach sending an attribute of a playlist corresponding to a selected playlist name to a playlist server. The disclosure in Encarnacion is discussed above in connection with UPnP AV 1.0. Dr. Almeroth testified that one of ordinary skill would have been motivated to combine Weast with Encarnacion's playlist feature at least because both references are implementations of the UPnP

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protocol. In addition, U.S. Patent No. 8,160,495 discloses this limitation. *See* RX-0086 (Khedouri). For example, Khedouri states that a user may “use the touch-screen to select an artist, after which, they are presented with a listing of tracks by that artist, which may be scrolled through or searched in another easy way.” *Id.* at col. 23, lns. 21-33; *see also id.* at col. 9, lns. 60-67; col. 15, lns. 1-20; Fig. 8; Fig. 15. Dr. Almeroth testified that one of ordinary skill would have been motivated to combine Weast with Khedouri’s playlist feature at least because both references relate to sharing playlists and media between connected devices. RX-0460C (Almeroth DWS) Q/A 200.

i. Encarnacion – Obviousness of Claims 5, 8, 22, 34, and 37

Respondents and Intervenor have provided clear and convincing evidence to show that Encarnacion renders obvious claims 5, 8, 22, 34, and 37 under any of the proposed claim constructions. *See* RX-0460C (Almeroth DWS) Q/A 234-37, 242, 264-65.

i. Encarnacion Alone or in Combination with Weast

Dependent claims 5 and 34 specify that “the first device comprises a mobile phone.”

Encarnacion describes an implementation of the UPnP AV Architecture, which is designed to be “independent of any particular device type, content format, and transfer protocol.” RX-0140 (UPnP AV 1.0) (UPnP_000051). Encarnacion discloses that the control point device may be a handheld portable device, such as a PDA. *See* RX-0082 (Encarnacion) at col. 8, lns. 14-28. Dr. Almeroth testified that it would have been straightforward for one of ordinary skill to implement control point functionality on a mobile phone. *See* RX-0460C (Almeroth DWS) Q/A 108. The industry was already moving in the direction of building into mobile phones the features used in laptop computers and PDA devices, and by the late 1990s and early 2000s several companies released mobile phones with wireless-Internet capability. *See id.*

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Dr. Almeroth also testified that one of ordinary skill in the art would have been motivated to combine Encarnacion with the Weast reference, which describes an implementation of UPnP AV 1.0, to gain a more complete understanding regarding the manner in which the UPnP AV Architecture may be implemented. *See id.* Weast states that the UPnP Control Point may take the form of a mobile phone. *See* RX-0075 (Weast) at col. 5, lns. 10-15.

ii. Encarnacion Alone or in Combination with UPnP AV 1.0 or Weast

Dependent claims 8, 22 and 37 each specify that the claimed first device is capable of adjusting the volume on the second device. *See* JX-0003 ('873 patent).

Dr. Almeroth testified that using a control point to adjust the volume of a media renderer would have been obvious to one of ordinary skill in view of the common knowledge in the art. *See* RX-0460C (Almeroth DWS) Q/A 236. For example, he testified that at the time of the purported inventions, one of ordinary skill would have known that the control point, which is described in Encarnacion as controlling the media rendered on a media rendering device, might also be used to adjust the volume, tone, or balance of the media rendering device. *See id.* UPnP AV 1.0 and Weast both disclose that a control point may be used to adjust the volume of a media rendering device. *See* RX-0140 (UPnP AV 1.0) (UPnP_000056); RX-0075 (Weast) at col. 8, lns. 53-64. Mr. Almeroth further testified that one of ordinary skill in the art would have been motivated to combine Encarnacion with either of these references to obtain a more complete understanding regarding the manner in which the UPnP AV Architecture may be implemented. *See* RX-0460C (Almeroth DWS) Q/A 236.

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j. Secondary Considerations

With respect to secondary considerations of nonobviousness, BHM's expert relies on the alleged commercial success achieved by devices manufactured by Respondents and BHM's licensees. See CX-1401C (Loy RWS) Q/A 174-185. The alleged evidence of commercial success, however, is given little weight with regard to an obviousness determination, because Dr. Loy has not identified the required nexus between any alleged commercial success and the specific inventions claimed in the '873 patent. See *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1327-28 (Fed. Cir. 2008).

For example, any commercial success of the Respondents' accused products could be due to the various noninfringing uses of the accused devices and components. See, e.g., RX-0671C (Lipoff RWS) Q/A 334-45; RX-0673C (Polish RWS) Q/A 229-30; RX-0667C (Goldberg RWS) Q/A 348-54, 384; RX-0674C (Schonfeld RWS) Q/A 105, 118-22. Alternatively, the alleged commercial success of the accused products could be due to other factors, such as other unclaimed features of the accused products, brand recognition and reputation for producing high-quality products, or the advertising and marketing of the accused products. The same holds true for the [] products alleged to practice the asserted patents.

Accordingly, it is determined that the evidence of secondary considerations adduced by BHM would fail to overcome a finding that the asserted claims of the '873 patent are obvious.

VI. The '652 and '952 Patents

A. Overview of the Technology

The '652 and '952 patents were filed November 27, 2006, share a common specification, and are continuations of U.S. Patent Application No. 09/805,470 filed March 12, 2001. JX-0009 ('652 patent); JX-0007 ('952 patent). Each claims priority to U.S. Provisional Application No.

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60/246,842, filed November 8, 2000. JX-0009 ('652 patent); JX-0007 ('952 patent); *see* RX-0463C (Jeffay DWS) Q/A 14, 16; CX-1067C (Zatkovich DWS) Q/A 38. The '652 and '952 patents disclose "a network-enabled audio device for listening to a variety of audio sources." JX-0007 ('952 patent) at col. 1, lns. 15-17; RX-0463C (Jeffay DWS) Q/A 18. The audio sources include music identified by a playlist assigned to an electronic device and Internet radio broadcasts streamed from a website. RX-0463C (Jeffay DWS) Q/A 18; JX-0007 ('952 patent) at col. 2, lns. 33-62. Software modules stored on the audio device provide the claimed playlist and/or Internet radio broadcast. RX-0463C (Jeffay DWS) Q/A 19; JX-0007 ('952 patent) at col. 2, lns. 33-56.

One software module is "configured to use the modem to connect to an Internet service provider to receive assignments of playlists" that include "references to audio." RX-0463C (Jeffay DWS) Q/A 19; JX-0007 ('952 patent) at col. 2, lns. 37-45. After receiving a playlist, the software module "connect[s] through an Internet service provider to web sites to download audio files." RX-0463C (Jeffay DWS) Q/A 19; JX-0007 ('952 patent) at col. 2, lns. 37-45. Another module for Internet radio is "configured to use the modem to connect to an Internet service provider to receive digitized audio broadcasts from the Internet service provider" such that, "to the user, reception of a broadcast from the World Wide Web is no more complicated than listening to a local FM or AM radio station." RX-0463C (Jeffay DWS) Q/A 19; JX-0007 ('952 patent) at col. 1, lns. 29-42; col. 1, lns. 44-51; col. 2, lns. 47-56. The internet radio broadcast functionality is discussed in the first half of the specification, and the playlist functionality is discussed in the remaining portion. *See* JX-0007 ('952 patent) at col. 7, ln. 28 – col. 16, ln. 28; col. 16, ln. 29 – col. 33, ln. 67.

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B. Claim Construction

1. Level of Ordinary Skill in the Art

As proposed by Respondents, it is determined that one of ordinary skill in the art as of the priority date of the '952 and '652 patents would have a Bachelor of Science degree in electrical engineering, computer engineering, computer science, or equivalent thereof, and one to two years of experience with computer and multimedia networking. *See* RX-0463C (Jeffay DWS) Q/A 14, 16. More education could substitute for experience, and that experience, especially when combined with training, could substitute for formal college education.⁵³ *See id.*

2. Disputed Claim Terms

a. “assigned to the electronic device” ('652 patent claim 1 / '952 patent claims 9, 14)

Claim Term/Phrase	Complainants' Proposed Construction	Respondents and Intervenor's Proposed Construction	Staff's Proposed Construction
“assigned to the electronic device”	“directed to the electronic device”	“[receive the playlist] designated for use on the specific electronic device”	Playlist is directed/instructed to selected electronic device

The claim term “assigned to the electronic device” appears in claim 1 of the '652 patent and claims 9 and 14 of the '952 patent. BHM and Respondents contend that the plain and ordinary meaning of this term should apply, but also provide proposed constructions in the event it is determined that construction is necessary. *See* Compl. Br. at 280-83; Resps. Br. at 112-14. BHM construes the term “assigned to the electronic device” to mean “directed to the electronic

⁵³ BHM's expert Mr. Zatkovich testified that there is no material difference between his opinion regarding the relevant field and the appropriate level of ordinary skill in the art and that of Respondents' expert Dr. Jeffay. CX-1400C (Zatkovich RWS) Q/A 11.

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device,” and Respondents construe this term to mean “[receive the playlist] designated for use on the specific electronic device.” Compl. Br. at 280-83; Resps. Br. at 112-14. The Staff argues that the claim term “assigned to the electronic device” “limits the playlist to one which has been purposefully directed/instructed to a selected electronic device.” *See* Staff Br. at 137-40.

As proposed by Respondents, the claim term “assigned to the electronic device” is construed to mean “[receive the playlist] designated for use on the specific electronic device.” This construction is supported by the intrinsic evidence, comports with the understanding of a person having ordinary skill in the art, and is consistent with the Staff’s proposed construction.

The specification describes assigning each particular playlist for use on a specific electronic device. *See* RX-0463C (Jeffay DWS) Q/A 79; JX-0007(’952 patent) at col. 3, lns. 51-54; col. 22, lns. 36-48; col. 24, lns. 44-60; col. 28, lns. 11-20; Figs. 17C; Fig. 19B. As illustrated in Figure 17C, a “user can choose the menu option of ‘Make Available On’ to assign the playlist” to a selected device in the drop down menu. JX-0007(’952 patent) at col. 24, lns. 50-53; Fig. 17C. Likewise, Figure 17 E illustrates a schedule playlist feature wherein a playlist is selected for a particular time and “on a particular device” by the user from a drop-down menu. *Id.* at col. 25, lns. 3-10; Fig. 17E.

The adopted construction is also consistent with the way in which the inventors described and developed a product that allegedly embodied the claims. For example, named inventor Sheppard testified that a user would assign a playlist by selecting the specific device on which he wanted the playlist to appear. JX-092C (Sheppard Dep.) at 132, 133. Once a user selected the device to which the playlist would be assigned, the playlist was associated with that device. *Id.* The product that allegedly embodied the invention operated in a similar way. An AudioRamp Document explains that “Playlists can be flagged for download to specific devices.” RX-0387C

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(AudioRamp) at BHM-ITC-093715. This is illustrated in one of the figures, showing that a user may select a playlist for use on specific devices by selecting check boxes corresponding to those devices. *Id.* at 17. A user may also select the “Send To” button shown in this figure to “execute the Exporter System to let the user select a personal audio device to send the current playlist to.” *Id.* at 19.

BHM argues that the adopted construction excludes a “preferred” embodiment. *See* Compl. Br. at 282. BHM cites to column 22, lines 47-48 of the specification as disclosing that a playlist is assigned to a device when the device connects to the network. Compl. Br. at 282 n.26. The specification, however, fails to indicate that this embodiment is “preferred” over any other embodiment. *See* JX-0007 (’952 patent). Further, the surrounding discussion makes clear that a user assigns the playlist to the device before the device connects to the network. JX-0007 (’952 patent) at col. 22, lns. 39-41. Moreover, Dr. Jeffay testified that this portion of the specification explains the timing of the assignment and does not imply that establishing a connection results in the assignment of a playlist. Jeffay Tr. 906-907. He testified that the specification “isn’t saying that log-in or connections results in assignment. It just says when the assignment occurs.” *Id.*

BHM also cites to column 25, lines 54-56 in support of its proposed construction. *See* Compl. Br. at 282. This portion of the specification describes “new files and updates automatically downloaded” to a device when such device is added to the network. JX-0007 (’952 patent). BHM argues that this passage teaches automatic downloading of a playlist. *See* Compl. Br. at 282. Contrary to BHM’s position, the patentee drew a distinction between “playlists” and “files” throughout the specification. *See* Resps. Br. at 114. Specifically, this passage from the specification demonstrates that the new “files” refer to “audio files,” and not playlists. JX-0007 (’952 patent) at col. 25, lns. 55-58. The next sentence in the specification

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makes this clear, explaining that a “device can become a dedicated MP3 server by downloading files to the device every time an *audio file* is downloaded to any other device.” IX-0007 (’952 patent) at col. 25, lns. 56-58 (emphasis added). Thus, this portion of the specification does not support BHM’s proposed construction.

Therefore, the claim term “assigned to the electronic device” is construed to mean “[receive the playlist] designated for use on the specific electronic device.”

- b. **“obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source” (’652 patent claim 1 / ’952 patent claims 9, 14)**

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
<p>“obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source”</p>	<p>Plain and ordinary meaning, no construction required. Not clear what Respondents wish to construe.</p> <p>If a construction is necessary: “receiving from the at least one remote source the at least one of the plurality of songs that is not stored on the electronic device”</p> <p>“wherein ones of the plurality of songs are not stored on the electronic device” means:</p> <p>“wherein at least one of the plurality of songs is not stored on the electronic device”</p>	<p>“downloading and storing on the electronic device all of the songs on the playlist, that are not already stored on the electronic device, from a source that is separate from the electronic device”</p>	<p>obtain = “download a file” (e.g. download file equivalent to those “stored”/identified as “not stored”)</p>

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The claim term “obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source” appears in claim 1 of the ’652 patent and claims 9 and 14 of the ’952 patent.

BHM argues that the plain and ordinary meaning of this term should apply and that no construction is needed. *See* Compl. Br. at 266. If it is determined that construction is necessary, BHM proposes that the “obtain . . .” claim term should be construed as “receive from the at least one remote source the at least one of the plurality of songs that is not stored on the electronic device.” Compl. Br. at 267. BHM also proposes that the related “obtaining . . .” claim term should be construed as “receiving from the at least one remote source the at least one of the plurality of songs that is not stored on the electronic device.” *Id.* BHM further proposes that the antecedent claim term “wherein ones of the plurality of songs are not stored on the electronic device” should be construed to mean “wherein at least one of the plurality of songs is not stored on the electronic device.” *Id.*

Respondents propose that the claim term “obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source” should be construed to mean “downloading and storing on the electronic device all of the songs on the playlist, that are not already stored on the electronic device, from a source that is separate from the electronic device.” *See* Resps. Br. at 266-71. The Staff’s proposal is that the term “obtain” should be construed to mean “download.” *See* Staff Br. at 122-23.

As proposed by Respondents, the claim term “obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source” is construed to mean “downloading and storing on the electronic device all of the songs on the playlist, that are not already stored on the electronic device, from a source that is separate from

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the electronic device.” This construction is consistent with the intrinsic evidence, comports with the understanding of a person having ordinary skill in the art, and is consistent with the Staff’s proposed construction.

The claim language reflects that the “obtained” audio files are ones that are not previously stored on the device. *See* RX-0463C (Jeffay DWS) Q/A 46; JX-0007 (’952 patent) at claim 9. The purpose of “obtaining” audio files is to store them on the device. *See* RX-0463C (Jeffay DWS) Q/A 46. The specification describes the claimed invention the same way, by referring to different ways to download songs or audio files not yet stored on the device.

RX-0463C (Jeffay DWS) Q/A 46; JX-0007 (’952 patent) at col. 2, lns. 41-45; col. 4, ln. 60 – col. 5, ln. 3; col. 17, lns. 10-31; col. 22, lns. 49-58; Figs. 19A-C. These disclosures demonstrate that the intended purpose of the claimed invention is to download the audio files or songs not yet stored on the device.

By contrast, BHM’s proposed construction of the disputed claim term contradicts the claim language. For example, claim 9 recites “receiving” and “obtaining” as different acts with different meanings. *See* RX-0463C (Jeffay DWS) Q/A 48; JX-0007 (’952 patent) at claim 9. Indeed, BHM’s expert Mr. Zatkovich testified at the hearing that the terms “obtaining” and “receiving” apply to different steps and have different meanings. Zatkovich Tr. 115.

BHM takes the position that “obtaining” does not require downloading and storing because the specification includes an embodiment where the audio content corresponding to items of the playlist is streamed to the electronic device and not stored when, for example, the electronic device “has no disk for data storage space.” *See* Compl. Br. at 269-70 (citing JX-0009 at col. 4, lns. 4-9; JX-0007 at col. 3, lns. 57-58). The passage cited by BHM in support of this argument, however, fails to state that the device completely lacks storage, but rather states that

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the device has no disk. RX-0463C (Jeffay DWS) Q/A 49. Lack of a disk in a specific embodiment does not mean that the device is incapable of storage, and does not preclude the application of the adopted claim construction proposed by Respondents. *See id.* If the opposite were true the diskless embodiment would either not be enabled or would not be covered by the claims, because the device would be unable to execute software or receive playlists, all of which would require storage. *See id.*

Accordingly, the claim term “obtain[ing] the ones of the plurality of songs [that are not stored on the electronic device] from [the] at least one remote source” is construed to mean “downloading and storing on the electronic device all of the songs on the playlist, that are not already stored on the electronic device, from a source that is separate from the electronic device.”

c. “playlist” (’652 patent claim 1 / ’952 patent claims 9, 14)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“playlist”	Plain and ordinary meaning or “a list referencing media items arranged to be played in a sequence”	“a list of one or more audio files for playback”	One or more audio files listed for audio playback

The disputed term “playlist” appears in claim 1 of the ’652 patent and claims 9 and 14 of the ’952 patent. BHM takes the position that the plain and ordinary meaning of the term should apply and that this term does not need construction, but if it is determined that the term requires construction, that it should be construed to mean “a list referencing media items arranged to be played in a sequence.” *See Compl. Br. at 275-79.* Respondents argue that the term should be

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construed to mean “a list of one or more audio files for playback.” *See* Resps. Br. at 66-67. The Staff takes the position that the term should be construed to mean “one or more audio files listed for audio playback.” *See* Staff Br. at 115-121.

As proposed by Respondents, the claim term “playlist” is construed to mean “a list of one or more audio files for playback.” This construction comports with the understanding of a person having ordinary skill in the art, and is consistent with the construction proposed by the Staff. *See* RX-0463C (Jeffay DWS) Q/A 42-43.

The '952 patent teaches that a playlist “is a list of audio files and associated URL’s of where the audio files were retrieved from.” JX-0007 ('952 patent) at col. 21, lns. 62-65; RX-0463C (Jeffay DWS) Q/A 42. The '952 patent explains that the URLs within the playlist “indicate the location from which the audio files associated with the song titles in the playlist can be downloaded.” JX-0007 ('952 patent) at col. 22, lns. 47-50; RX-0463C (Jeffay DWS) Q/A 42. Inasmuch as the playlist includes a list of audio files that have been (or will be) downloaded, one of ordinary skill in the art would understand that the list references audio files or songs to be played back from the device. RX-0463C (Jeffay DWS) Q/A 42.

The construction proposed by BHM provides that a “playlist” encompasses “media items” as opposed to “songs” or “audio.” *See* Compl. Br. at 275-79. This proposed construction contradicts claim language that recites songs, and not “media items.” *See* RX-0463C (Jeffay DWS) Q/A 44. Moreover, the '952 patent specification references “songs” and “audio files” when describing the content of a playlist, such that construing the claimed “playlist” as referencing such items is consistent with the intrinsic evidence.

Furthermore, evidence adduced at the hearing demonstrates that one of ordinary skill in the art would not interpret the term “playlist” as limited to “items to be played in a sequence,” as

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proposed by BHM. *See* RX-0463C (Jeffay DWS) Q/A 44. As support for its position, BHM identifies the patent specification’s reference to an optional, single embodiment in which a “user can click the shuffle button to ‘randomize’ the playlist as opposed to playing the playlist in the same order.” JX-0007 (’952 patent) at col. 24, lns. 38-40; *see* RX-0463C (Jeffay DWS) Q/A 44. This single, optional disclosure, however, does not mandate that a “playlist” be limited to items “arranged to be played in a sequence.”

Accordingly, the claim term “playlist” is construed to mean “a list of one or more audio files for playback.”

d. “Internet radio broadcast” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“Internet radio broadcast”	Plain and ordinary meaning or “broadcast audio programming made available over the Internet”	“a radio broadcast streamed for listeners via the Internet”	“radio broadcast (e.g. FM, AM, satellite broadcasts) transmitted via the internet for listeners (e.g. people in a car listening to FM, AM, satellite radio)”

The claim term “Internet radio broadcast” appears in claim 1 of the ’652 patent. BHM takes the position that the plain and ordinary meaning of the term should apply and that this term does not need construction, but if it is determined that the term requires construction, that it should be construed to mean “broadcast audio programming made available over the Internet.” *See* Compl. Br. at 288. Respondents argue that the term should be construed to mean “a radio broadcast streamed for listeners via the Internet.” *See* Resps. Br. at 119-20. The Staff takes the position that the term should be construed to mean “radio broadcast (e.g. FM, AM, satellite

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broadcasts) transmitted via the internet for listeners (e.g. people in a car listening to FM, AM, satellite radio),” which reflects the plain and ordinary meaning of the term. *See* Staff Br. at 127-28.

The parties’ proposed constructions for the term “Internet radio broadcast” are similar, and it does not appear that any issue raised in this investigation would be affected by adopting one proposed construction over another.⁵⁴ Therefore, the claim term “Internet radio broadcast” is construction to mean “a radio broadcast streamed for listeners via the Internet.”

e. “playlist mode of operation” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“playlist mode of operation”	Plain and ordinary meaning or “a user selectable mode of operation of the electronic device, where the electronic device is capable of playing audio content indicated by a playlist”	“a mode of operation of the electronic device where the electronic device carries out playback of audio files on a playlist”	Plain and ordinary meaning – such as user selectable mode of operation where electronic device plays audio files indicated by playlist

The claim term “playlist mode of operation” appears in claim 1 of the ’652 patent. BHM takes the position that the plain and ordinary meaning of the term should apply and that this term does not need construction, but if it is determined that the term requires construction, that it should be construed to mean “a user selectable mode of operation of the electronic device, where the electronic device is capable of playing audio content indicated by a playlist.” *See* Compl. Br. at 289-90. Respondents argue that the term should be construed to mean “a mode of operation of

⁵⁴ The parties all agree that an “Internet radio broadcast” does not include podcast-type programming. *See* Compl. Br at 288; Resps. Br. at 119-20; Staff Br. at 127-28.

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the electronic device where the electronic device carries out playback of audio files on a playlist.” *See* Resps. Br. at 120-21. The Staff takes the position that the term should be construed to mean “user selectable mode of operation where electronic device plays audio files indicated by playlist,” which reflects the plain and ordinary meaning of the term. *See* Staff Br. at 128-29.

As proposed by Respondents, the term “playlist mode of operation” is construed to mean “a mode of operation of the electronic device where the electronic device carries out playback of audio files on a playlist.” This construction reflects the understanding of a person having ordinary skill in the art, especially in light of the constructions adopted above for the terms “playlist” and “obtaining . . .” *See* RX-0463C (Jeffay DWS) Q/A 59. This construction is also consistent with the construction proposed by the Staff. *See* RX-0463C (Jeffay DWS) Q/A 60.

f. “Internet radio mode of operation” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“Internet radio mode of operation”	“a user selectable mode of operation of the electronic device, where the electronic device is capable of playing an Internet radio broadcast”	“a mode of operation of the electronic device where the electronic device receives and plays an Internet radio broadcast”	Plain and ordinary meaning – such as user selectable mode of operation where electronic device plays Internet radio broadcast

The claim term “Internet radio mode of operation” appears in claim 1 of the ’652 patent. BHM takes the position that the plain and ordinary meaning of the term should apply and that this term does not need construction, but if it is determined that the term requires construction, that it should be construed to mean “a user selectable mode of operation of the electronic device,

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where the electronic device is capable of playing an Internet radio broadcast.” *See* Compl. Br. at 290-91. Respondents argue that the term should be construed to mean “a mode of operation of the electronic device where the electronic device receives and plays an Internet radio broadcast.” *See* Resps. Br. at 121-22. The Staff takes the position that the term should be construed to mean “user selectable mode of operation where electronic device plays Internet radio broadcast,” which reflects the plain and ordinary meaning of the term. *See* Staff Br. at 128-29.

As proposed by Respondents, the term “Internet radio mode of operation” is construed to mean “a mode of operation of the electronic device where the electronic device receives and plays an Internet radio broadcast.” This construction is supported by the specification, which does not use the term “Internet radio mode of operation,” but does reference “a Web radio mode” wherein the device receives a list of Web broadcasts and access to the Internet so that the various Web broadcasts are received. RX-0463C (Jeffay DWS) Q/A 62, 63; JX-0009 (’652 patent) at col. 10, lns. 49-63. The adopted construction is also consistent with the Staff’s proposed construction. *See* RX-0463C (Jeffay DWS) Q/A 64.

g. “playback” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“playback”	The claim language is “enable playback.” Plain and ordinary meaning, no construction required. If a construction is necessary: “enable playback” means “capable of placing media into a form suitable for presentation to an output device such as a speaker”	“playing audio content stored on the electronic device”	“playing back audio content”

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The claim term “playback” appears in claim 1 of the ’652 patent. BHM takes the position that the claim at issue is “enable playback” and that this term does not need construction, but proposes the construction of “capable of placing media into a form suitable for presentation to an output device such as a speaker” in the event it is determined that construction is needed. *See* Compl. Br. at 271-75. Respondents argue that the term “playback” should be construed to mean “playing audio content stored on the electronic device.” *See* Resps. Br. at 122-23. The Staff proposes that the term “playback” should be construed to mean “playing back audio content,” which is the term’s plain and ordinary meaning. *See* Staff Br. at 129-30.

As an initial matter, the disputed claim term briefed by BHM (*i.e.*, “enable playback”) differs from the disputed claim term briefed by Respondents and the Staff (*i.e.*, “playback”). Ground Rule 11.a requires that “the claim terms briefed by the parties must be identical.” Order No. 14 (Amended Ground Rules) (Aug. 6, 2013). The Joint Outline of Issues filed by the parties identifies the claim term in dispute as “playback.” *See* Joint Outline of Issues at 14. Accordingly, this initial determination shall construe the term “playback,” and BHM’s arguments with respect to the construction of “enable playback” are disregarded. *Cf.* Order No. 14 (Amended Ground Rules) at G.R. 11.a (Aug. 6, 2013) (“For example, if the construction of the claim term ‘wireless device’ is disputed, the parties must brief that exact claim term. If a party briefs only a portion of the claim term such as ‘wireless’ or ‘device,’ that section of the brief will be stricken.”).

Having considered the arguments of Respondents and the Staff with respect to the construction of “playback,” it is determined that this term should be construed to mean “playing audio content stored on the electronic device.” This construction is consistent with the specification and the claim language. *See, e.g.*, RX-0463C (Jeffay DWS) Q/A 66-69. In

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particular, the language of claim 1 specifies that the control “system enabl[es] playback of audio content from a playlist” as “indicated by the playlist.” *Id.*; JX-0009 (’652 patent) at claim 1. As explained in the context of the term “obtaining,” the claims specify that the audio files obtained are the ones that are not yet stored on the device. *See* RX-0463C (Jeffay DWS) Q/A 67. Thus, the purpose of the “system enabling playback” is to play the songs from the device’s storage, including those songs that will eventually be obtained by the device. *Id.*

h. “central system” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“central system”	“server hardware and/or software”	“hardware and/or software that is separate from but connected to the electronic device”	Plain and ordinary meaning – such as component (i.e. hardware with software)

The claim term “central system” appears in claim 1 of the ’652 patent. BHM takes the position that that the plain and ordinary meaning of the term should apply and that this term does not need construction, but if it is determined that the term requires construction, that it should be construed to mean “server hardware and/or software.” *See* Compl. Br. at 291-92. Respondents argue that the term should be construed to mean “hardware and/or software that is separate from but connected to the electronic device.” *See* Resps. Br. at 124. The Staff takes the position that the term should be given its plain and ordinary meaning: “An example of such a meaning could be a specific component that transmits an assigned playlist and ‘information enabling the device to obtain.’” *See* Staff Br. at 136.

The constructions proposed by the parties are similar, the major difference being that Respondent’s proposed construction requires that the hardware and/or software be separate but

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connected to the claimed electronic device, a requirement not found in the constructions proposed by BHM and the Staff.

It is determined that the claim term “central system” is construed to mean “hardware and/or software that is separate from but connected to the electronic device.” This construction is consistent with the patent specification, which discloses a server or server site including hardware and/or software that is shown as separate but connected to various electronic devices. RX-0463C (Jeffay DWS) Q/A 71; JX-0009 (’652 patent) at col. 3, lns. 35-42; col. 16, lns. 56-60; col. 21, lns. 40-61; Fig. 2; Fig. 15.

i. “enable [-ing]” and “adapted to” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“enable [-ing]” vs. “adapted to”	Plain and ordinary meaning, no construction required.	“enable”: “to put [putting] into an operative condition for” “adapted to”: “configured to”	Enable = having functionality Adapted to = specific for

The terms “enable [-ing]” and “adapted to” appears in claim 1 of the ’652 patent. BHM takes the position that the plain and ordinary meaning of these terms would be understood by a person having ordinary skill in the art, and that no construction is required. *See* Compl. Br. at 287. Respondents argue that “enable” should be construed to mean “to put into an operative condition for,” and that “adapted to” should be construed to mean “configured to.” *See* Resps. Br. at 124-25. The Staff contends that “enable” should be construed to mean “having functionality,” and that “adapted to” should be construed to mean “specific for.” *See* Staff Br. at 136-37.

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It is determined that the term “enable” is construed to mean “to put into an operative condition for,” and that the term “adapted to” is construed to mean “configured to.” The adopted constructions are consistent with the language of the claim and supported by the specification, which discloses a system “enabling” playback that performs some function to put the electronic device in an operative condition to play back songs. RX-0463C (Jeffay DWS) Q/A 83. In particular, receiving information that provides directions to the location of a particular audio file puts the electronic device in operative condition to obtain the songs. RX-0463C (Jeffay DWS) Q/A 83.

Moreover, a system is “adapted to” perform a series of tasks when that system is configured to, or has all the necessary functionality to, perform the series of tasks. RX-0463C (Jeffay DWS) Q/A 83. In the context of the claimed invention, one of ordinary skill would understand that an electronic device is “adapted to” or “configured to” perform a series of tasks when it contains computer code or program instructions sufficient to perform the operations recited without additional modification or the addition of further program instructions. *Id.*

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j. “identifying” (’652 patent claim 1)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“identifying”	Plain and ordinary meaning, no construction required.	<p>“[the playlist] identifying [a plurality of songs]” means:</p> <p>“[the playlist] indicating [a plurality of songs]”</p> <p>“identifying [ones of the plurality of songs in the playlist that are not stored on the electronic device]” means:</p> <p>“determining [ones of the plurality of songs in the play list that are not stored on the electronic device]”</p>	<p>“playlist identifying a plurality of songs” – “identifying” as performed by playlist is different from identifying as method step</p> <p>“identifying ones of the plurality of songs in the playlist” - “identifying” here is operation performed by device performing the method</p>

The claim term “identifying” appears in claim 1 of the ’652 patent. BHM takes the position that that the plain and ordinary meaning of the term should apply and that this term does not need construction. *See* Compl. Br. at 283-86. Respondents argue that the term “identifying,” which appears in two separate contexts within claim 1, should be construed two different ways depending on the context. *See* Resps. Br. at 125-26. Specifically, Respondents argue that “[the playlist] identifying [a plurality of songs]” should be construed to mean “[the playlist] indicating [a plurality of songs],” and that “identifying [ones of the plurality of songs in the playlist that are not stored on the electronic device]” should be construed to mean “determining [ones of the plurality of songs in the play list that are not stored on the electronic device].” *See id.* The Staff also argues that the two instances of “identifying” should be construed differently depending on context. *See* Staff Br. at 133-35.

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It is determined that the two instances of the term “identifying” should be construed differently depending on its context within the claim. The phrase “[the playlist] identifying [a plurality of songs]” is construed to mean “[the playlist] indicating [a plurality of songs],” and the phrase “identifying [ones of the plurality of songs in the playlist that are not stored on the electronic device]” is construed to mean “determining [ones of the plurality of songs in the playlist that are not stored on the electronic device].” These constructions reflect the understanding of a person having ordinary skill in the art when reading the claim language. *See* RX-0463C (Jeffay DWS) Q/A 75.

k. Order of Steps ('652 patent claim 1 / '952 patent claim 9)

Claim Term/Phrase	Complainants' Proposed Construction	Respondents and Intervenor's Proposed Construction	Staff's Proposed Construction
“user sending status”	“information indicating whether the user has selected, or the device is configured, to send data to or respond to requests from other mobile communication devices or the server”	“information indicating whether the device is currently able to send data or requests to other mobile communications devices or the central server”	“playing back audio content”

With respect to whether the claim elements need to be performed in any specific order,

BHM argues as follows:

The claim elements are not required to be performed in any specific order. First, claim 1 of the '652 Patent is an apparatus claim, not a method claim. As a result, there is no specific order of steps at issue. Second, with respect to claim 9 of the '952 patent, which is a method claim, the use of antecedent basis alone to refer back to previously recited claim terms does not necessarily limit the claims to a specific order of steps. Here, nothing in the claim or specification requires a specific order (e.g., there is nothing in the claim that would prevent the “playlist” and the “information enabling ...” from being received simultaneously).

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Compl. Br. at 286.

The Staff argues that, “with respect to certain elements, but not all elements, the syntax of the claims requires a particular order.” Staff Br. at 131-33. Nevertheless, “the Staff is not proposing that the claim requires completion of the steps prior to advancing in a particular order. The Staff’s position merely reflects that reversing, or rendering ineffective, certain claimed steps would not be logical in light of the language of the claims.” *Id.* at 132.

The Respondents did not brief the issue of whether or not the elements recited in the asserted claims require a certain order. *See* Joint Outline of Issues at 15.

Having reviewed asserted method claim 9 of the ’952 patent, it is the determination of the administrative law judge that the “receiving . . . information enabling the electronic device to obtain the ones of the plurality of songs” step needs to be performed before the “obtaining the ones of the plurality of the songs” step, but there is no requirement that one “receiving” step needs to be performed before the other “receiving” step, or vice versa.

3. Undisputed Claim Terms⁵⁵

a. “network interface” (’652 patent claim 1)

The claim term “network interface” appears in claim 1 of the ’652 patent. The parties agree that this claim term should be construed to mean “hardware and/or software to couple the electronic device to a communications network.” *See* Joint List of Proposed Constructions at 18.

⁵⁵ As before, although this initial determination construes only the disputed claim terms set forth in the Joint Outline of Issues, the parties’ proposed construction of undisputed claim terms identified as needing construction is included here for completeness.

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b. “system” (’652 patent claim 1)

The claim term “system” appears in claim 1 of the ’652 patent. The parties agree that this claim term should be construed to mean “hardware and/or software.” *See* Joint List of Proposed Constructions at 18.

c. “control system” (’652 patent claim 1, 11, 13)

The claim term “control system” appears in claims 1, 11, and 13 of the ’652 patent. The parties agree that this term should be construed to mean “hardware and/or software for controlling operations on the electronic device.” *See* Joint List of Proposed Constructions at 19.

d. “remote source” (’652 patent claim 1 / ’952 patent claims 9, 14)

The claim term “remote source” appears in claim 1 of the ’652 patent and claims 9 and 14 of the ’952 patent. The parties agree that this term should be construed to mean “a source that is separate from the electronic device.” *See* Joint List of Proposed Constructions at 19.

C. Infringement Analysis of Samsung Accused Products

1. Accused Applications and Functionalities

As summarized above, BHM accuses certain Samsung devices of infringing the ’952 and ’652 patents when combined with one or more software applications or functionalities. Specifically, BHM has accused the following combinations of devices and applications or functionalities of infringing the ’952 patent:

- Samsung Mobile and Player Devices with “DLNA” - claims 9 and 14
- Samsung Player Devices with Spotify or Pandora - claim 9
- Samsung Mobile Devices with Slacker - claim 9
- Samsung Mobile Devices with Google Play Music⁵⁶ - claims 9 and 14

⁵⁶ The infringement analysis of Samsung products incorporating Google Play Music is set forth

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See CX-0669C (Houh RWS) Q/A 342.

BHM also accuses the following combinations of devices and applications of infringing claim 1 of the '652 patent:

- Samsung Player Devices with vTuner and “DLNA,” Spotify or Pandora
- Samsung Player Devices with a web browser and “DLNA,” Spotify or Pandora
- Samsung Mobile Devices with Slacker

See CX-0669C (Houh RWS) Q/A 342.

Asserted claims 11 and 13 of the '652 patent depend from claim 1. Although BHM has also accused combinations including “DLNA” and Slacker of infringing claim 1, BHM has only accused Spotify, Pandora and Google Play Music of meeting the additional limitations of dependent claims 11 and 13. Specifically, BHM has accused the following combinations of infringing these dependent claims:

- Samsung Player Devices with Spotify and vTuner or a web browser - claims 11 and 13
- Samsung Player Devices with Pandora and vTuner or a web browser - claims 11 and 13
- Samsung Mobile Devices with Slacker and Google Play Music - claim 11

CX-0669C (Houh RWS) Q342.

a. DLNA (Mobile and Player Devices)

BHM has accused Samsung Mobile and Player Devices with what it refers to as “DLNA” of infringing claims 9 and 14 of the '952 patent and, when combined with other accused applications, claim 1 of the '652 patent. Under the heading “DLNA,” BHM groups several applications, libraries, and functionalities together, including Nearby Devices, AllShare,

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AllShare Play, and Samsung Link. BHM, however, has not specified how it contends any one of these technologies meets all the limitations of any asserted claim. RX-0669C (Houh RWS) Q82-83.

As discussed above in connection with the '873 patent, DLNA refers to a set of guidelines incorporating preexisting public standards that define a set of interoperability protocols that allow devices to communicate and share media, even when the devices are designed and manufactured by different companies. RX-0669C (Houh RWS) Q84.

BHM's allegations regarding infringement of the '952 and '652 patents focus on the "two-box model" implementation of DLNA. RX-0669C (Houh RWS) Q88. The two-box model includes a server, which is a device that stores the content, and a renderer or a player, which is a device that can display or play the content. [

]. RX-0669C (Houh RWS) Q87-88, 156. [

]. *Id.*

b. Slacker (Mobile Devices Only)

BHM has accused Samsung Mobile Devices with Slacker of infringing claim 9 of the '952 patent, claim 1 of the '652 patent alone or in combination with other accused applications, and claims 11 and 13 of the '652 patent when used in combination with Google Play Music. Slacker is a network-based streaming music service provided by Slacker, Inc. that allows users to browse a library of digital music, listen to songs, and create playlists. RX-0669C (Houh RWS) Q93-97. Users can also listen to custom radio stations personalized for an individual user's account based on song ratings provided by the user of that account. *Id.* Slacker offers a free option and two levels of paid service: Slacker Radio Plus and Slacker Premium. *Id.*

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c. Spotify (Player Devices Only)

BHM has accused Samsung Player Devices with Spotify of infringing claim 9 of the '952 patent and, when used in combination with vTuner or the web browser, of infringing claims 1, 11, and 13 of the '652 patent. Spotify is a network-based streaming music service provided by the Swedish company Spotify AB. Spotify has both a free service and two tiers of paid service, including "unlimited" and "premium" services. RX-0669C (Houh RWS) Q100-05. The "premium" account costs \$9.99 per month and allows users of mobile devices to download music and listen to that music offline. *Id.* In order to use Spotify on the Samsung Player Devices, the user must have a premium paid account. *Id.*

d. Pandora (Player Devices Only)

BHM has accused Samsung Player Devices with Pandora of infringing claim 9 of the '952 patent and, when used in combination with vTuner or the web browser, of infringing claims 1, 11 and 13 of the '652 patent. Pandora is a network-based streaming music service, which may be personalized for an individual account based on song ratings provided by the user of that account. RX-0669C (Houh RWS) at Q106-08. Pandora is offered as a free service and as a premium service called Pandora One. *Id.*

e. vTuner (Player Devices Only)

BHM has accused vTuner on Samsung Player Devices of infringing claims 1, 11 and 13 of the '652 patent, but only when used in conjunction with either Pandora or Spotify. vTuner is a network-based streaming service that allows users to stream audio via various Internet-based sources. RX-0669C (Houh RWS) at Q109.

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f. **Web Browser (Player Devices Only)**

BHM has accused the web browser on Samsung Player Devices, in conjunction with either Pandora or Spotify, of infringing claims 1, 11 and 13 of the '652 patent. RX-0669C (Houh RWS) at Q110-11. BHM has alleged that the web browser on Samsung Player Devices meets the Internet radio broadcast limitations of the these claims. Specifically, BHM has alleged that Internet radio broadcasts can be played from www.shoutcast.com using the web browser. The web browser on Samsung Player Devices is similar to those commonly used on personal computers and other web-enabled devices to access websites on the Internet. *Id.* Nevertheless, Samsung's expert, Dr. Houh, was unable to use the web browser on several of the accused Player Devices to play the alleged Internet radio broadcasts from www.shoutcast.com. *Id.*

2. **Importation of the Accused Applications and Functionalities**

The record evidence demonstrates that many of the software applications accused of infringing the '952 and '652 patents are not installed on the accused Samsung devices prior to importation. As discussed above, they therefore cannot form the basis of a claim for direct or induced infringement in this investigation because the accused functionality is not present at the time of importation.

The record evidence further shows that BHM's expert Mr. Zatkovich did not independently determine which applications are preinstalled on the accused devices at the time of importation. Mr. Zatkovich testified that he was not present when many of the devices he tested were unpacked and activated, and that he did not provide any record indicating which devices, if any, he participated in unpacking and activating. Zatkovich Tr. 102-103, 104-106. Therefore, he was unable to determine which applications, if any, were preinstalled on the devices at the time of importation. *See id.* Moreover, Mr. Zatkovich updated the software on

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some devices, meaning that the software he tested was not the software present on the device at the time of importation. *See* Zatkovich Tr. 104. Mr. Zatkovich relied upon Samsung's verified interrogatory responses to determine which software applications come preinstalled on the Samsung products, and those responses show that [

J. *See* CX-1183C (Samsung Supp. Responses to Interrogatory Nos. 57 and 60, includes Appendix B); CX-1185C (Samsung Appendix C to Supp. Responses to Interrogatory Nos. 57, 60, 70, 71, 72); CX-1189C (Samsung Supp. Responses to First Set of Interrogatory Nos. 1-10, 29-32, 49, 54 and 57).

Once installed on the accused products, each of the applications requires that users take additional steps before accessing the accused functionality. For example, in cases where a paid account is needed, the user would need to sign up for a paid account and log in to that account, an action that could occur only after importation into the United States. Mr. Zatkovich testified that he analyzed only paid accounts for Pandora, Slacker, and Spotify. *See* Zatkovich Tr. 106-107, 136.

In addition, all of the asserted claims of the '952 and '652 patents require interaction with a network. For Samsung Mobile Devices, users need to either activate the device on a mobile network with a data plan from a carrier, such as AT&T, or connect the Mobile Device to a network, such as a WiFi network, by selecting a router and, if required, entering a password. RX-0669C (Houh RWS) Q/A 114. Similarly, for Samsung Player Devices, users need to take a series of active steps, such as entering passwords and/or connecting cables, in order to connect

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the device to a network. *Id.* at Q/A 118. Only when set up correctly do such Mobile and Player Devices have the required network connectivity and/or device functionality to carry out the allegedly infringing functions of the accused applications. *Id.* at Q/A 155.

a. **Third Party Applications on Samsung Mobile Devices (Slacker, Google Play Music)⁵⁷**

The record evidence shows that [

].

CX-1185C (Samsung Appendix C to Supp. Responses to Interrogatory Nos. 57, 60, 70, 71, 72); CX-1189C (Samsung Supp. Responses to First Set of Interrogatory Nos. 1-10, 29-32, 49, 54 and 57) ([); RX-0669C (Houh RWS) Q/A 116-18, 221-22. [

]. *Id.*

[]. *Id.* A stub is an icon that can be used to download the application if the user chooses to click on it. If the Slacker application is not preinstalled on the device or is not offered as a stub, the user would have to search for the application and download it to the device. *See* Samsung Br. at 63-64.

Once installed, the user must take additional steps post-importation to access the accused functionality of the Slacker applications. In order to use Slacker in the manner accused by BHM of infringement, the user must connect the device to the Internet, set up a user account, log into that user account, purchase a premium Slacker account, and take some action on the device that

⁵⁷ Google Play Music is discussed in a separate section below.

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causes it to interact with one or more servers over the Internet. RX-0669C (Houh RWS) Q/A 93-97, 221-222. All of these required actions occur after importation. *Id.* at Q/A 155-58.

b. Third Party Applications on Samsung Player Devices (Spotify, Pandora, vTuner, web browser)

The record evidence shows that the accused third-party applications []]. CX-1183C (Samsung Supp. Responses to Interrogatory Nos. 57 and 60, includes Appendix B); RX-0669C (Houh RWS) Q/A 116-18, 281-85, 310. [

[]]. *See* RX-0669C (Houh RWS) Q/A 116-18, 281-85, 310. If not [], the application will only be installed on the accused product if the end user elects to search for and download the application after importation. *See id.* The user is not required to download an accused application, but instead may choose to watch TV or Blu-ray discs without enabling the network-based features. *See id.*

BHM's expert Mr. Zatkovich argues that []]. CX-1067C (Zatkovich DWS) Q/A 184. The evidence shows, however, that a user of a Samsung Player Device [

[]]. RX-0669C (Houh RWS) Q/A 101-05. In order to use Spotify on a Samsung Player Device, [

]

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[], all of which must be done after importation. *Id.* [

]. *Id.*

In order to use Pandora on a Samsung Player Device, the user must [

]. RX-0669C

(Houh RWS) Q/A 106-08; RX-0491 (Houh Pandora TV opening screen); Zatkovich Tr. 136.

[

]. *See* RX-0669C (Houh RWS) Q/A 106-08.

The evidence also shows that a vTuner [

]. RX-0669C (Houh RWS) Q/A109.

In addition, in order to use the accused functionality of the web browser on Samsung Player Devices, the user would need to [

]. RX-0669C (Houh RWS) Q/A 110.

c. DLNA on Samsung Player and Mobile Devices

BHM accuses DLNA functionality on the Samsung accused devices of infringing the '652 and '952 patents. Although the evidence shows that [

]

[

]. RX-0669C (Houh RWS) Q/A 91. [

].

Id. [

]. *Id.* [

]. *Id.*

In order to share media using the Samsung S4 phone, the “File Sharing” option had to be turned on as shown in Mr. Zatkovich’s test video. *Id.*; CPX-0275 (video of DLNA testing done by BHM); RX-0669C (Houh RWS) Q/A 92. Further, Dr. Houh testified that he had to [

]. RX-0669C (Houh

RWS) Q/A 92. Only then was he able to [

]. *Id.* The

same was true for []. *Id.*

3. Direct Infringement Analysis

a. BHM’s Identification of Representative Products

BHM’s expert, Mr. Zatkovich, identified two representative products, a Samsung [] phone, model number [], and a Samsung TV, model number [], when he then analyzed for infringement. CX-1067C (Zatkovich DWS) Q/A 107-08. BHM relies on this analysis to argue that all accused Samsung products infringe the

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'952 and '652 patents. *Id.* BHM has failed to show, however, that the “representative” products are the same as the other accused products in all relevant respects. Samsung did not stipulate that any particular products are “representative,” and the evidence does not support BHM’s contention that all accused devices are the same.

As Samsung’s expert Dr. Houh testified, there are differences across different models with respect to the state of the device at the time of importation. RX-0669C (Houh RWS) Q/A 112-15; Houh Tr. 1198-1200. For example, a phone is not representative of a tablet, and a TV is not representative of a Blu-Ray player or a Home Theatre, as there are necessarily hardware differences. *Id.* Moreover, one specific phone or TV is not even necessarily representative of all other phones or TVs because these devices also may differ with respect to hardware, operating systems, and/or other software installed at the time of importation. *Id.* For example, the [

]. *Id.* In addition, Dr. Houh’s testing indicated that [

]. *Id.*

Therefore, it is determined that the Samsung [] and the Samsung TV [] that BHM analyzed for infringement purposes is not representative of all accused Samsung Mobile Devices and Player Devices, respectively. Any finding of infringement with respect to these two accused Samsung products will be limited solely to these two products, and will not be extended to the entire corpus of Samsung accused products.

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b. Assignment of Playlists to Accused Devices

The evidence adduced by BHM at the hearing fails to show that the accused products satisfy the “playlist assigned to the electronic device” limitation recited in all asserted claims of the '952 and '652 patents. The evidence does show that [

].

The construction of “playlist assigned to the electronic device” adopted above is “designated for use on a specific electronic device.” The playlists identified by Mr. Zatkovich are [

]. Moreover, Mr. Zatkovich very little evidence or analysis of the “assigned to an electronic device” limitation under the adopted construction of this term. RX-0669C (Houh RWS) Q235-36.

BHM and Mr. Zatkovich have held various positions as to when and how they allege that a playlist is assigned to a device. First, Mr. Zatkovich testified that playlists are [

], consistent with BHM’s

proposed construction, which equates “directing” and “assigning.” CX-1067C (Zatkovich DWS) Q160-61, 175, 178, 198, 216. During cross examination, however, he testified that [

]. *See* Zatkovich Tr. 93-94.

During cross examination, Mr. Zatkovich also testified that the “playlists” in the accused applications [

]. *See* Zatkovich Tr. 119-122,

124-125, 174-175, 175-176. Mr. Zatkovich, however, also testified that [

]. Zatkovich Tr. 125, 127, 134, 136-137, 150.

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Indeed, Mr. Zatkovich testified that playlists [

]. *Id.* Mr. Zatkovich further testified that a playlist []]. *See* Zatkovich Tr. 152.

As Dr. Houh explained, one of skill in the art would not consider the mere receipt of [] to meet the “assigned to the electronic device” limitation.

RX-0669C (Houh RWS) Q43-44. When a user uses a device to access an online service, data is necessarily sent to or received by that device. *Id.* When a user [

]. *Id.*

Similarly, if a user [

]. *Id.*; Zatkovich Tr. 125, 175-176.

In some instances, Mr. Zatkovich also relied on [

]. CX-1067C (Zatkovich DWS) Q175. Such reliance is misplaced. As Dr. Houh explained, [

]. RX-0669C (Houh RWS) Q291. [

].

Id. [

].

As detailed below for each of the accused applications, the evidence establishes that playlists []. Therefore, the accused Samsung Devices do not meet the “playlist assigned to the electronic device” under limitation under any proposed construction of the term, including the construction adopted

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above, and therefore cannot infringe any asserted claim of the '952 or '652 patents. *See* RX-0669C (Houh RWS) Q234-39, 297-302, 311-331,.

i. Slacker

The record evidence shows that Samsung Mobile Devices with Slacker do not satisfy the “playlist assigned to an electronic device” limitation of claim 9 of the '952 patent or claim 1 of the '652 patent. Slacker [

]. RX-0669C (Houh RWS) Q96, 223. [

]. *Id.* at Q223. [

]. *Id.* at Q223.

In his allegations regarding Samsung Mobile Devices with Slacker, Mr. Zatkovich relies on packet trace evidence from an LG device, which cannot prove how a Samsung device operates. RX-0669C (Houh RWS) Q224; CX-1067C (Zatkovich DWS) Q160; CX-0224C (Slacker packet trace for LG). Mr. Zatkovich does not identify any device-specific identifier used by the Slacker application, and he does not identify a device-specific identifier associated with requests made to the server that result in the receipt of an alleged playlist. Instead, Mr. Zatkovich points to the model number of the device, which is not device specific, and to

[CX-1067C (Zatkovich DWS) Q160; RX-0669C (Houh RWS) Q227. Mr. Zatkovich testified, however, that he assumed that there was some unique identifier passed when a playlist was requested, and that he was not sure because he would need to look at the source code to do that analysis. *See* Zatkovich Tr. 151. Yet, Mr. Zatkovich did not review any Slacker source code in this investigation. *See id.* Further, the LG packet trace he relies on fails to show

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any accused Spotify functionality. RX-0669C (Houh RWS) Q287; RPX-0255 (Spotify video produced by BHM); Zatkovich Tr. 172. Spotify [

]. *Id.* In fact, the evidence shows that [

]. CX-1403C (M. Ericsson Decl.) ¶12; Zatkovich Tr. 174. As with the other accused applications, Mr. Zatkovich testified that [

]. *See* Zatkovich Tr. 175-176.

Samsung's expert Dr. Houh tested the application on Samsung devices, analyzed the source code, and determined that the [

RX-0669C (RWS Houh) Q288-93. Mr. Zatkovich points to

] as evidence in support of his infringement analysis, but [

]. *Id.* at Q291; CX-0661C ({

(SPOT-BHM-00094). In fact, the user [

]. *Id.* [

]. RX-0669C (RWS

Houh) Q292-95; RPX-0174C (Spotify Source Code) (SPOT-BHM-SC-000876); RPX-0083C

(Spotify Source Code) (SPOT-BHM-SC-000232-242).

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iii. Pandora

The record evidence shows that Samsung Player Devices with Pandora do not satisfy the “playlist assigned to an electronic device” limitation of claim 9 of the '952 patent or claim 1 of the '652 patent. Pandora [

]. See Zatkovich Tr. 137. According to BHM’s expert Mr. Zatkovich, [

]. See Zatkovich Tr. 137.

As explained by a Pandora representative, [

]. See JX-0015C (C. Edwards Decl.) ¶ 7(i). As Mr. Zatkovich testified, [

]. *Id.*; Zatkovich Tr. 143, 144. Moreover, as shown in the [

]. See JX-0015C (C. Edwards Decl.) ¶ 7(i), CX-0383C (Pandora API) (PNDRA_000029-31, 75-76); RX-0669C (Houh RWS) Q311-17.

Mr. Zatkovich also points to [

]. CX-1067C (Zatkovich DWS) Q214. The evidence shows that [

]. CX-0383C (Pandora API)

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(PNDRA_000080-83); RX-0669C (Houh RWS) Q311-17. [

]. CX-0383C (Pandora API) (PNDRA_000082-83). [

]. *Id.* (PNDRA_0000137-138); RX-0669C (Houh RWS) Q314. [

]. *Id.* [

]. *Id.* [

]. *Id.* [

]. CX-

0383C (Pandora API) (PNDRA_000080-81); RX-0669C (Houh RWS) Q317. [

]. *Id.*

iv. DLNA

With respect to the accused “DLNA” functionality, Mr. Zatkovich has not identified a “playlist” that is sent to a device, and has not established that a playlist is “assigned to an electronic device” as required by all asserted claims of the ’952 and ’652 patents. RX-0669C (Houh RWS) Q185-90. [

]. RX-0669C (Houh RWS) Q171. [

]. *Id.*

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Dr. Houh examined the source code for Samsung's implementations of "DLNA," reviewed the testimony of Samsung's witnesses, and conducted testing of Samsung's devices. As a result, he concluded that [

]. RX-0669C (Houh

RWS) Q171-90. For example, [

]. *Id.* at Q171-72. [

]. RX-0669C (Houh RWS) Q171-72; RPX-0077C (AllShare Framework Source Code); RPX-0078C (AllShare Framework Source Code); RPX-0081C (AllShare Framework Source Code). [

]. *Id.* [

]. *Id.*

Similarly, for Samsung Link and AllShare Play, [

].

RX-0669C (Houh RWS) Q174. [

]. *Id.* [

]. *Id.*

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Dr. Houh also conducted a test in which he [

] RX-0669C (Houh RWS) Q177-81;

RX-0548 (Houh photographs of TV during “DLNA” testing); RX-0549 (Houh photographs of [] during “DLNA” testing). [

]. *Id.* This test demonstrates that [

]. *Id.*

c. Download and Storage of Songs

Each of the asserted claims of the '952 and '652 patents require that the device either carry out or be adapted to carry out the following functions: 1) receive a “playlist,” 2) the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device, and 3) obtain the ones of the plurality of songs.

All proposed constructions of the term “obtaining the ones of the plurality of songs,” including the construction adopted above, requires that the songs be downloaded and stored on the device. Further, the adopted construction of “playlist,” which is “a list of one or more audio files for playback,” includes the term “playback” that is construed to mean “playing audio content stored on the electronic device.” Therefore, under the adopted constructions, the term “playlist” also requires that the songs be downloaded and stored on the device.

As discussed further below, BHM has not provided evidence establishing that the accused applications download and store songs. BHM also has not provided evidence establishing that an entire song is stored on any accused Samsung device in connection with any accused application, let alone that multiple songs are stored as required by the claims. On the

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contrary, [

].

i. DLNA

Mr. Zatkovich provides no evidence to show that songs are downloaded and stored on the accused Samsung Mobile and Player Devices using any of the functionalities or applications he refers to as “DLNA.” RX-0669C (Houh RWS) Q191. Mr. Zatkovich does cite to photographs

[], but neither the photographs nor the [

] CX-1067C (Zatkovich DWS) Q117-18.

Dr. Houh’s own testing and examination of the Samsung AllShare Framework source code confirms that [

] RX-0669C (Houh RWS) Q194; RPX-0099C (Source code for AllShare Framework); RPX-0079C (Source code for AllShare Framework); RPX-0080C (Source code for AllShare Framework). Dr. Houh conducted several tests where he [

] RX-0669C

(Houh RWS) Q195-97. Inasmuch as the evidence establishes that [

], when using the accused “DLNA” functionality, Samsung Mobile and Player Devices with the accused “DLNA” functionality do not infringe any asserted claim of the ’952 or ’652 patents. *See* RX-0669C (Houh RWS) Q191-211.

ii. Slacker

Similarly, Mr. Zatkovich does provide evidence showing that [

]

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[_____], RX-0669C (Houh RWS) Q240-42; JX-0076C (Kindig Dep.) at 46-47. Inasmuch as the evidence establishes that [_____]; Samsung Mobile Devices with the Slacker application do not infringe any asserted claim of the '952 or '652 patents. See RX-0669C (Houh RWS) Q240-44.

iii. Spotify

Mr. Zatkovich does not provide evidence showing that songs are downloaded and stored using the accused functionality of the Spotify application. Dr. Houh testified that, [_____], RX-0669C (Houh RWS) Q303-04. [_____], *Id.* Samsung Player Devices with the Spotify application thus do not infringe any asserted claim of the '952 or '652 patents. RX-0669C (Houh RWS) Q303-06.

iv. Pandora

Mr. Zatkovich also does not provide evidence to show that songs are downloaded and stored using the accused functionality of the Pandora application. Dr. Houh testified, consistent with the Pandora Declaration, that [_____], RX-0669C (Houh RWS) Q335-36; JX-0015C (C. Edwards Decl.) ¶ 7 (v-vii). [_____], *Id.* Samsung Player Devices with the Pandora application thus do not infringe any asserted claim of the '952 or '652 patents. See RX-0669C (Houh RWS) Q335-36, 339-40.

d. Receipt of a Playlist

i. DLNA

Mr. Zatkovich and BHM have not established that Samsung Devices with “DLNA” receive a “playlist” as required by all of the asserted claims. They instead point to the *display* of

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alleged playlists. As Dr. Houh explained, Mr. Zatkovich mischaracterized the testing that he relies on for his opinion that the alleged “playlist” is received by an electronic device using Samsung Link. *See* CPX-0278 (video of test 502 without audio). In that test, which was actually conducted by Dr. Loy, a folder is labeled “Test Playlist” is copied into the shared Music folder on the PC. *Id.* Mr. Zatkovich claims that the test shows that the playlist is then received by electronic device. CX-1067C (DWS Zatkovich) Q112. On the contrary, the folder was not a list of audio files but rather a folder containing *actual* audio files. RX-0669C (RWS Houh) Q202; CPX-0278 (video of test 502 without audio). Dr. Houh attempted to replicate test 502 and [

] RX-0669C (RWS Houh) Q203-11; RX-0550 (Houh photographic evidence regarding DLNA); RX-0551 (Houh photographic evidence regarding DLNA); RX-0552 (Houh photographic evidence regarding DLNA); RX-0553 (Houh photographic evidence regarding DLNA); RX-0690 (Screenshot of Windows Media Player); RX-0691 (Screenshot of files in ZatkovichTestFolder); RX-0692 (Screenshot of files outside ZatkovichTestFolder). Further, the audio files themselves are not transferred to the device in the step Mr. Zatkovich points to and he presented no evidence of what data is actually transferred or in what form it is transferred. *Id.*

Furthermore, as discussed above with respect to the ‘873 patent, BHM argues that Weast fails to disclose the playlist limitation of the ‘873 patent because the system disclosed in Weast “merely lists the files available.” CX-1401C (DWS Loy) Q107; Tr. (Loy) 406:12-407:20. Applying that same argument to the ‘952 and ‘652 patents, where BHM proposes the same construction for playlist, Samsung Link and AllShare Play do not provide or receive a “playlist” under BHM’s construction because these applications [

] RX-0678C (RWS Yook) Q48. Likewise, applications that use

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the AllShare Framework, AllShare, or Nearby Devices [

] Similarly, Mr.

Zatkovich has attempted to distinguish the Ninja-Jukebox reference from the '952 and '652 patents by arguing that “[a] catalog of songs is not a playlist . . . Rather, the full catalog, by definition, is the full universe of songs that could potentially be accessed via the system, not a set of songs that is assigned or directed to a user’s device.” CX-1400C (RWS Zatkovich) Q48. Again, applying Mr. Zatkovich’s interpretation of playlist from his invalidity analysis, devices using the functionalities that Mr. Zatkovich refers to as “DLNA” also do not receive “a playlist assigned to the device” because they receive “the full listing of songs that could be potentially accessed via the system.”

Finally, as discussed earlier, devices using [

] See, e.g., RX-0669C

(RWS Houh) Q198-201.

ii. Pandora

Similarly, even if the one were to apply BHM’s construction of “playlist,” Samsung Player Devices with Pandora do not infringe. The Wireshark packet traces that BHM previously relied upon and that Dr. Houh analyzed demonstrate that the response to the “getPlaylist” function of Pandora includes references to media items that are not played at all, and thus the media items are not arranged to be played in a sequence as required by BHM’s construction. RX-0669C (RWS Houh) Q337-38.

Further, Mr. Zatkovich’s testimony establishes that Pandora does not fall within his understanding of the claimed playlist because []

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[]. When attempting to distinguish the RealPlayer prior art reference, Mr. Zatkovich testified that the metafile in the Real Player system was not a playlist because the contents of the metafile were not identified to the user. CX-1400C (RWS Zatkovich) Q74-75. Specifically, in RealPlayer, a song title is not displayed until the song starts playing. *Id.* [

[]. *See* Tr. (Zatkovich) 135:14-25. Thus, if the metafile in Real Player is not a playlist because the user does not see the names of the songs on the list until they are played, the []

c. Additional Limitations of '952 Patent Claim 14

i. DLNA

BHM also asserts claim 14 of the '952 patent against Samsung Mobile and Player Devices with "DLNA." Inasmuch as claim 14 depends from claim 9, Samsung Mobile and Player Devices with "DLNA" do not infringe claim 14 for the same reasons discussed above with respect to claim 9. In addition, Samsung Mobile and Player Devices do not infringe claim 14 because they do not satisfy the additional limitation requiring that "the personal audio network server enables a user to assign a playlist to the electronic device."

Mr. Zatkovich has not identified the personal audio network server, nor has he established that there is a personal audio network server that enables the user to assign a playlist to a device. Mr. Zatkovich argues that the limitation is met because [

[]. CX-1067C (Zatkovich DWS) Q119. However, as Dr. Houh

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explained, [

]. RX-0669C (Houh RWS) Q214-17; CX-0735

(Galaxy Note II FAQ - DLNA). Allowing a device to [

] is not the same as enabling the user to assign a playlist to the device. *Id.*

Moreover, the server does not “enable a user to assign a playlist to the electronic device” as required by claim 14 of the ’952 patent. Instead, the user [

]. *See* RX-0669C (Houh RWS) Q214-17.

[

]. *Id.* [

]. *Id.*

Similarly, allowing devices to register with a content delivery system and associate with each other and cloud storage does not enable a user to assign a playlist to a device. RX-0669C (Houh RWS) Q217. Such registration and any related association between devices merely allows devices to communicate with each other; it does not result in the “assigning” of media to any device or set of devices. *Id.*

f. Additional Limitations of the ’652 Asserted Claims

The evidence shows that Samsung Mobile and Player Devices do not infringe claims 1, 11 or 13 of the ’652 patent. As an initial matter, Mr. Zatkovich and BHM rely on the same analysis for the playlist limitations of the asserted claims of the ’652 patent as relied upon for the asserted claims of the ’952 patent. Therefore, for the reasons discussed above as to why Samsung Mobile and Player Devices do not infringe the asserted claims of the ’952 patent, they do not infringe the asserted claims of the ’652 patent. *See* RX-0669C (Houh RWS) Q349-60. In

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addition, Samsung Mobile and Player Devices also do not infringe the '652 patent for the additional reasons set forth below.

i. Required Structural Elements

Claim 1 of the '652 patent, from which claims 11 and 13 depend, requires a) a network interface enabling the electronic device to receive an Internet radio broadcast and being further adapted to communicatively couple the electronic device to a central system, b) a system enabling playback of audio content from a playlist assigned to the electronic device via the central system, and c) a control system associated with the network interface and the system enabling playback of the audio content indicated by the playlist. Mr. Zatkovich has not identified the underlined structural elements for any of the accused devices and has not provided evidence that any accused device meets these limitations of the asserted claims. *See* RX-0669C (Houh RWS) Q348.

Mr. Zatkovich also has not specifically identified the “central system” for “DLNA,” Slacker, Spotify, or Pandora. Thus, BHM has not established that accused devices “receive the playlist assigned to the electronic device *from the central system*” or “receive information *from the central system* enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source,” as required by claim 1 of the '652 patent. RX-0669C (Houh RWS) Q351, 354, 356, 358, 360; JX-0009 ('652 patent) at claim 1 (emphasis added).

Further, BHM has not established that the accused devices with “DLNA” “receive information from the central system enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source” as required by claim 1 of the '652 patent. As demonstrated by the record evidence, [

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[

]. RX-0669C (Houh RWS) Q351. [

]. *Id.* This means that [

]. *Id.* The claims, however, require that the central system provide the information that enables obtaining, but that the songs be obtained from a remote source. *Id.* The server cannot be both the central system and the remote source at the same time.

ii. Internet Radio Limitations

Claim 1 of the '652 patent also requires that the accused device be able to operate in an "internet radio" mode of operation in which the device can "receive and play an internet radio broadcast." JX-0009 ('652 patent) at claim 1. BHM has failed to show that vTuner, the web browser, or Slacker provides an "internet radio" mode of operation as required by claim 1.

For vTuner, the only evidence Mr. Zatkovich cited in support of an "internet radio" mode of operation is two photographs. CX-1067C (Zatkovich DWS) Q229; CX-0451 (Photographs). Photographs do not show whether the device was playing audio, and Mr. Zatkovich provides no evidence or explanation of what the alleged audio was or how it was received. RX-0669C (Houh RWS) Q361; CX-0451 (Photographs). Similarly, for the web browser, Mr. Zatkovich cited only photographs illustrating a web-browser with access to www.shoutcast.com. CX-1067C (Zatkovich DWS) Q246; CX-0449 (Photographs). These photographs also do not establish that the device was actually playing audio, or if audio was playing, what the audio was or from where it was received. RX-0669C (Houh RWS) Q362. Moreover, Dr. Houh's own testing showed that [

].

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Id. Therefore, Mr. Zatkovich has not established that vTuner or the web browser is capable of playing an internet radio broadcast. *Id.* at Q361-62.

Mr. Zatkovich also relied on a photograph to show that Slacker meets the internet radio broadcast limitation. CX-1067C (Zatkovich DWS) Q254; CX-0391 (Photographs). Again, the photograph does not establish whether the device was playing audio, or if it was, what audio was being played or from where that audio was received. RX-0669C (Houh RWS) Q363. Even if the device were playing audio, other aspects of the photograph, such as the presence of a “pause” button and the label “SC Digital Update,” suggest that it was playing a recorded audio clip and not an internet radio broadcast. *Id.* Thus BHM has failed to show that the Slacker application meets the internet radio broadcast limitation. *See* RX-0669C (Houh RWS) Q263-64.

iii. Internet Radio and Playlist Modes of Operation

Claim 1 of the '652 patent requires that a device “enable a user of the electronic device to select a desired mode of operation from a plurality of modes of operation,” namely, the internet radio mode and playlist mode. JX-0009 ('652 patent) at claim 1. In many cases, BHM’s infringement allegations rely on two separate applications to satisfy the “internet radio mode” and “playlist mode” of operation. For example, BHM accuses Samsung Player Devices with both the vTuner (internet radio) and Spotify (playlist) applications of infringing. As Dr. Houh testified, the fact that a user can install multiple applications on a device to provide different functionalities does not create two “modes of operation” for the device; rather, it provides two separate applications for use on the device. RX-0669C (Houh RWS) Q365.

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4. Indirect Infringement

BHM alleges that Samsung has contributed to and/or induced infringement of certain asserted claims.⁵⁸ As discussed in further detail below, BHM has not shown that Samsung is liable for indirect infringement of the '952 and '652 patents.

a. Predicate Acts of Direct Infringement

BHM has failed to adduce evidence showing direct infringement of the '652 and '952 patents by a third party, which is a necessary predicate for its indirect infringement claims. BHM has pointed to use by certain Samsung employees to prove direct infringement, but BHM has not presented any evidence that a Samsung employee has actually performed the claim elements. For example, Mr. Zatkovich cites to testimony that certain employees of SEA and STA have used Samsung Link on accused devices in the United States, but use of Samsung Link is not enough to prove direct infringement, particularly given the many noninfringing ways it can be used. *See* CX-1067C (Zatkovich DWS) Q123.

BHM presented two categories of evidence relating to alleged infringement by customers: (1) user manuals, product specifications and other marketing materials and (2) []]. This evidence is not sufficient to show direct infringement by customers, for it merely demonstrates that Samsung may have promoted the use of certain applications, those applications may have been used on a Samsung device in the United States. In particular, as discussed below, the accused devices and applications can be used in noninfringing ways. For example, for the '952 and '652 patents, Mr. Zatkovich cited to

⁵⁸ It is not entirely clear for which claims BHM still alleges indirect infringement. The Joint Outline of Issues indicates that BHM is asserting direct infringement only for the asserted device claims from the '873 patent (claims 23, 30, 34, 37 and 45) and the '652 patent (claims 1, 11 and 13). BHM presumably alleges indirect infringement of all other asserted claims, as well as possibly the asserted device claims.

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user manuals, service guides, instructional videos, and marketing materials as evidence of “active encouragement” and use. *See, e.g.*, CX-1067C (DWS Zatkovich) Q121-22, 169, 223, 676; *see also* RX-0669C (RWS Houh) Q395, 399, 404 (responding to evidence presented by BHM). Mr. Zatkovich also offered evidence of [

]. *See, e.g.*, CX-1067C (DWS Zatkovich) Q121-22, 188, 223. This evidence does not establish direct infringement, however, for it does not show that any end user actually performed the specific elements or steps recited in the asserted claims.

b. Knowledge and Specific Intent

To prevail in its claims of contributory infringement and inducement, BHM must prove that Samsung knew of the asserted patents and specifically intended to contribute to or induce infringement at the time of the allegedly infringing acts. The record establishes that Samsung did not have notice of the asserted patents until [

]. *See* JX-0078 (Kwon Dep.) at 40. Complaints filed with the Commission and in a related district court action alone are insufficient to show the required knowledge to support an indirect infringement claim. *See, e.g., Certain Video Game Systems and Wireless Controllers and Components Thereof*, Inv. No. 337-TA-770, Comm’n Op. at 32 (Nov. 6, 2012) (where the only evidence complainant cites for a respondent’s knowledge of the patent are complaints filed with the Commission and in district court, “[t]his is insufficient evidence of the required knowledge to show contributory infringement.”).

The evidence further shows that the accused devices and applications were already in the market and capable of many substantial noninfringing uses before Samsung had notice of the

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patents. *See* RX-0669C (Houh RWS) Q/A 418. In addition, the fact that many of the accused applications were designed by third parties, and not by Samsung, weighs against a finding that Samsung had a specific intent to induce or contribute to infringement of the asserted patents.

See, e.g., RX-0668C (RWS Heppe) Q30.

c. Substantial Noninfringing Uses

BHM has failed to show that the accused devices and functionalities lack substantial noninfringing uses, both at the device level and at the application level, thereby forestalling a finding of indirect infringement.

If the accused devices are considered as the component at issue for the indirect infringement analysis, the record evidence demonstrates that the accused mobile devices, televisions, Blu-ray players and home theater systems are capable of many substantial noninfringing uses. The accused mobile devices are multi-use devices capable of being used to communicate, such as through a cellular communication system or network, or by accessing the Internet via a WiFi access point. *See* RX-0668C (Heppe RWS) Q33. They are also capable of using hundreds, if not thousands, of different applications offered for Android devices. They can be used without a cellular or Internet connection in airplane mode as a PDA or to play music or games or watch videos. *Id.* They also can be used to make phone calls, send and receive texts and e-mails, access information, monitor health, view videos, and access productivity tools and applications. *Id.*; RX-0669C (Houh RWS) Q428. Similarly, Samsung televisions can be used to watch television shows or movies. RX-0669C (Houh RWS) Q429; *see also* RX-0671C (Lipoff RWS) Q334-39.

If the accused applications are treated as the component at issue for the indirect infringement analysis, the record evidence demonstrates that the applications are capable of

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substantial noninfringing uses. For instance, the functionality that Mr. Zatkovich refers to as “DLNA” has other substantial noninfringing uses such as browsing, sharing and displaying pictures, and playing videos saved on other devices over a wireless access point or the Internet. *See* RX-0669C (Houh RWS) Q432. It can also be used to play a single audio file. In the case of the ’652 patent, “DLNA” must be used along with another application, such as vTuner or a web browser on the player devices and Slacker on the mobile devices. *Id.* A user could use one application or the other, but not both, thereby employing noninfringing uses. *Id.*

The various third-party applications accused in conjunction with the Samsung device also are capable of substantial noninfringing uses. For example, with Slacker, a user can [

]. *See* RX-0669C (Houh

RWS) Q/A 433. Similarly, Spotify has substantial noninfringing uses such as [

]. *See id.* Q/A

435. Further, the Spotify application [

]. *See id.* The application also includes

[

]. *See* RX-0669C (Houh

RWS) Q407. With respect to the ’652 patent, a web browser also has substantial noninfringing uses, including browsing the web generally. *See* RX-0669C (Houh RWS) Q437.

D. Infringement Analysis of LG Accused Products

1. Overview of BHM’s Infringement Allegations Against LG

BHM asserts infringement of claims 9 and 14 of the ’952 patent and claims 1, 11, and 13 of the ’652 patent with respect to various applications. Order No. 49 at 2; RX-0670C (Jeffay

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RWS) Q/A 17-20; CX-1067C (Zatkovich DWS) Q/A 269-397; RX-0740C (Email Identifying Accusations).

2. Overview of Accused LG Products and Accused Applications

BHM accuses two categories of LG products of infringing claims of the '952/'652 patents: (1) LG Player Devices⁵⁹ and (2) LG Mobile Devices.⁶⁰ Collectively these products are referred to as LG's Accused Products. The LG Accused Products are not a homogenous group, for the evidence shows that there are significant differences in software between them.

RX-0632C (LG App. A); RX-0670C (Jeffay RWS) Q/A 40, 42. Not only do [

J. *Id.*; RX-0680C (H. Park DWS) Q/A 20-26.

BHM alleges that LG's Accused Products infringe based on the installation and operation of certain LG and third-party applications associated with them.⁶¹ RX-0670C (Jeffay RWS) Q/A 44. BHM's infringement allegations are directed to LG Mobile Devices associated with Smart Share, Google Play Music, and Slacker, and LG Player Devices associated with Smart Share, Google Play Music, Spotify, Pandora, vTuner, and a web browser for accessing Shoutcast, collectively called the Accused Applications. RX-0670C (Jeffay RWS) Q/A 44. BHM has

⁵⁹ The accused LG Player Devices include [] models of LG televisions, [] models of LG Blu-ray players, and five models of LG home theater systems. RX-0632C (LG App. A); RX-0670C (Jeffay RWS) Q/A 41; CX-1067C (Zatkovich DWS) Q/A 397.

⁶⁰ The accused LG Mobile Devices include [] models of LG phones and [] tablet. RX-0632C (LG App. A); RX-0670C (Jeffay RWS) Q/A 38; CX-1067C (Zatkovich DWS) Q/A 397.

⁶¹ BHM's infringement allegations with respect to the '952/'652 patents and Google Play Music are addressed in a separate section below.

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withdrawn and therefore waived its previous infringement allegations with respect to Aupeo, Rhapsody, Amazon Cloud/MP3 Player, and iHeartRadio.

While a few of the Accused Applications are [

]. RX-0670C (Jeffay RWS)

Q/A 44; RX-0632C (LG App. A). [

]. *Id.* For example, [

]. *Id.*

[

]. RX-0670C (Jeffay RWS) Q/A 46-54; RX-0680C (H. Park DWS)

Q/A 27, 29-31, 35; JX-0073C (J. Kim Dep.) at 143; JX-0066C (D. Ghosh Dep.) at 187-188;

JX-0076C (B. Kindig Dep.) at 82. To the extent [

]. *See*

id.; RX-0670C (Jeffay RWS) Q/A 54; RX-0680C (H. Park DWS) Q/A 27-35.

a. Pandora

BHM asserts infringement of claim 9 of the '952 patent by LG Player Devices associated with Pandora and claims 1, 11, and 13 of the '652 patent by LG Player Devices associated with Pandora in combination with vTuner or a web browser for accessing the Shoutcast website. CX-1067C (Zatkovich DWS) Q/A 358-70, 374-76, 384-85; RX-0670C (Jeffay RWS) Q/A 199-200. In asserting infringement, BHM did not analyze or rely on any client or server-side

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source code for Pandora. RX-0670C (Jeffay RWS) Q/A 64; CX-1067C (Zatkovich DWS) Q/A 358-70.

The record evidence shows that Pandora is a third-party streaming music application allowing users to create custom “stations” to listen to music based on their preferences.

RX-0670C (Jeffay RWS) Q/A 59. [

] *Id.*; CX-0383C ([] at PNDRA_00027. [

] CX-0383C ([] at PNDRA_00029; RX-0670C (Jeffay RWS) Q/A 59.

[

] RX-0670C (Jeffay RWS) Q/A 60; JX-0015C (Pandora Decl.) ¶ 7; CX-0383C ([] at PNDRA_00029. To use Pandora, a user login account is required.

RX-0670C (Jeffay RWS) Q/A 59. Music is thus streamed to a user’s account. As a result, “[

]” *Id.* [

] *Id.* Q/A 62; JX-0015C (Pandora Decl.) ¶ 7(v).

[

] RX-0670C (Jeffay RWS) Q/A 63; JX-0015C (Pandora Decl.) ¶ 7(vi).

“[

]”

RX-0670C (Jeffay RWS) Q/A 63; JX-0015C (Pandora Decl.) ¶ 7(vi). []

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[].
RX-0670C (Jeffay RWS) Q/A 63; JX-0015C (Pandora Decl.) ¶¶ 7(v), 7(vi). The evidence shows
that []. RX-0670C (Jeffay
RWS) Q/A 63; JX-0015C (Pandora Decl.) ¶ 7(vii). Rather, [
]. RX-0670C (Jeffay RWS) Q/A 63; JX-0015C
(Pandora Decl.) ¶ 7(vii).

The record evidence shows that [

]. RX-0670C (Jeffay RWS) Q/A 61; JX-0015C (Pandora
Decl.) ¶ 7(iv). []
]. *Id.*

b. Spotify

BHM asserts infringement of claim 9 of the '952 patent by LG Player Devices associated
with Spotify and asserts infringement of claims 1, 11, and 13 of the '652 patent by LG Player
Devices associated with Spotify in combination with vTuner or a web browser accessing the
Shoutcast website. CX-1067C (Zatkovich DWS) Q/A 343-57, 374, 376, 377-78. Spotify's code
and [] were made available for inspection in this investigation.

RX-0670C (Jeffay RWS) Q/A 78. [] *Id.*
at Q/A 68, 78; RX-0744C (Spotify Decl.); CPX-0038C (SPOT-BHM-SC-000001-960). [

]. RX-0670C (Jeffay RWS) Q/A 66-67; RPX-0009C ([]);
RPX-0010C ([]). In addition, BHM's expert did not review Spotify code

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for the purpose of determining what code is used by the accused LG Player Devices. RX-0670C (Jeffay RWS) Q/A 261.

Spotify is a third-party social networking and music application. RX-0670C (Jeffay RWS) Q/A 70, 95. In addition to playlist-related functionality, Spotify users can connect with friends and listen to “stations” based on a category or genre of music. *Id.* at Q/A 95. To use Spotify, []. *Id.*; CX-0650C ([]) at SPOT-BHM 000602; RX-0670C (Jeffay RWS) Q/A 79; RX-0733C (Spotify Decl.). []. RX-0670C (Jeffay RWS) Q/A 71; CX-0650C ([]) at SPOT-BHM 000594. []. RX-0670C (Jeffay RWS) Q/A 71-78; RX-0680C (H. Park DWS) Q/A 16-17; RX-0733C (Spotify Decl.). On LG Player Devices, []. *Id.*; *see also* RX-0670C (Jeffay RWS) Q/A 79, 84-90; RX-0733C (Spotify Decl.).

[]. RX-0670C (Jeffay RWS) Q/A 76-80, 91, 92, 107-09; RX-0733C (Spotify Decl.). For example, []. *Id.*

Similarly, []. *Id.* Dr. Jeffay’s analysis of Spotify confirms that [

] RX-0670C (Jeffay RWS) Q/A 91-94; CPX-0038C (Spotify Code) at 0237-241, 254-256, 263, 366, 564-568, 634-636, 736. []

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[]. RX-0670C (Jeffay RWS) Q/A 76-80, 91; RX-0733C (Spotify Decl.).

The evidence shows that [

]. RX-0670C (Jeffay RWS) Q/A 84-90, 93, 94; CPX-0038C (Spotify Code), (SPOT-BHM-SC-000161-162, 438-439, 413 (lines 1248-1274), 505-506, 633 (lines 557-598), 471 (lines 281-287, 289-291)); RPX-0010C ([]); RPX-0009C ([]).

LG's expert, Dr. Jeffay, analyzed [

]. RX-0670C (Jeffay RWS) Q/A 87-90. BHM's expert does not dispute this fact. *Id.* at Q/A 93-94; Zatkovich Tr. 166-168.

c. LG Smart Share

BHM asserts infringement of claims 9 and 14 of the '952 patent by LG Mobile Devices and LG Player Devices associated with LG's Smart Share application, claims 1 and 11 of the '652 patent by LG Player Devices associated with LG's Smart Share application and vTuner or a web browser accessing the Shoutcast website, and claim 1 of the '652 patent by LG Mobile Devices associated with LG's Smart Share application in combination with Slacker. CX-1067C (Zatkovich DWS) Q/A 280-88, 301-06, 374, 376, 384-85, 392.

The evidence shows that LG Smart Share is an application allowing users to share media (*i.e.*, pictures and video) among devices connected to one another on the same network. RX-0670C (Jeffay RWS) Q/A 96. For example, [

]. *Id.* That is, [

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[. *Id.* [

]. *Id.* at Q/A 97.

[. *Id.* [

]. *Id.* For example, [

]. *Id.* [

]. *Id.*

LG made its Smart Share source code available to BHM in this Investigation. RX-0670C (Jeffay RWS) Q/A 98. BHM did not cite to or rely on any Smart Share source code in its infringement allegations. *Id.* at Q/A 98-100; CX-1067C (Zatkovich DWS) Q/A 280-312. LG's expert, Dr. Jeffay, analyzed the Smart Share source code, and his analysis shows that [

]. RX-0670C (Jeffay RWS) Q/A

415-17. In addition, [

]. RX-0670C (Jeffay RWS)

Q/A 409-18.

d. Slacker

BHM asserts infringement of claim 9 of the '952 patent by the LG Mobile Devices associated with Slacker, claim 1 of the '652 patent by the LG Mobile Devices associated with Slacker alone or in combination with LG Smart Share, and claims 1, 11, and 13 of the '652 patent by the LG Mobile Devices associated with Slacker alone or in combination with Google Play Music. CX-1067C (Zatkovich DWS) Q/A 327-36.

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Slacker is a third-party streaming music application with different subscription levels.

RX-0670C (Jeffay RWS) Q/A 105, 110; RX-0570C ([REDACTED]), (SLACK-001-00001);

RX-0572C ([REDACTED]), (SLACK-001-0000368). [REDACTED]

[REDACTED]. RX-0670C (Jeffay RWS) Q/A 105, 110;

RX-0570C ([REDACTED]), (SLACK-001-0000007, 126, 139-40). [REDACTED]

[REDACTED]. RX-0670C (Jeffay RWS) Q/A 105-07; JX-0076C (B.

Kindig Dep.) at 83. The record evidence demonstrates that, [REDACTED]

[REDACTED]. RX-

0670C (Jeffay RWS) Q/A 108; JX-0076C (B. Kindig Dep.) at 83. Thus, [REDACTED]

].

Id.

BHM does not cite to or rely on any Slacker source code, but relies instead on Wireshark traces. RX-0670C (Jeffay RWS) Q/A 111; CX-1067C (Zatkovich DWS) Q/A 331-42, 387-96.

Among other things, BHM relies on [REDACTED]

[REDACTED]. *Id.*; Zatkovich Tr. 1544-1546.

e. vTuner

BHM asserts infringement of claims 1 and 11 of the '652 patent by LG Player Devices associated with vTuner and LG Smart Share and claims 1, 11, and 13 of the '652 patent by LG Player Devices associated with vTuner and either Pandora or Spotify. CX-1067C (Zatkovich DWS) Q/A 372-79.

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vTuner is a third-party application that allows a user to listen to radio streams.

RX-0670C (Jeffay RWS) Q/A 112. [

]. RX-0670C (Jeffay RWS) Q/A 112-13; JX-0095C (A. Storti Dep.) 13, 92. In alleging infringement, BHM does not analyze or rely on any vTuner source code. RX-0670C (Jeffay RWS) Q/A 114; CX-1067C (Zatkovich DWS) Q/A 372-79.

f. Web Browser (Shoutcast)

BHM asserts infringement of claims 1 and 11 of the '652 patent by LG Player Devices associated with LG Smart Share and a web browser accessing the Shoutcast website and claims 1, 11, and 13 of the '652 patent by LG Player Devices associated with a web browser accessing the Shoutcast website and either Spotify or Pandora. CX-1067C (Zatkovich DWS) Q/A 380-86.

Shoutcast is a website, not an application, allowing a user to listen to genre stations, such as pop stations, as well as radio stations. RX-0670C (Jeffay RWS) Q/A 115. The evidence shows that Shoutcast has been available and was well known since before the '952/'652 patents. RX-0463C (Jeffay DWS) Q/A 34; JX-0027 (The MP3 Guide), (3669-70); RX-0109 (Ninja), (3640, 3647).

3. Identification of Representative Products

BHM contends that the products its expert analyzed are “representative” of the operation and function of all of LG’s Accused Products. *See, e.g.*, Compl. Br. at 343-47. Out of [] accused LG products, BHM tested only two LG mobile phones, one LG television, one LG Blu-ray, and one LG home theater system, and concluded that 1) the single LG phone is representative of all LG Mobile Devices, 2) the single LG television it tested is representative of all LG Player Devices, and 3) the single LG Blu-ray player it tested is representative of all “LG

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Player Devices that include Spotify.” See CX-1067C (Zatkovich DWS) Q/A 397, 270-74; RX-0632C (LG App. A), (1-32); RX-0670C (Jeffay RWS) Q/A 134.

Specifically, BHM claims that [] is “representative” of LG Mobile Devices. CX-1067C (Zatkovich DWS) Q/A 397; RX-0670C (Jeffay RWS) Q/A 134. BHM also claims that [] is “representative” of LG Player Devices and that [] is “representative” of LG devices that include Spotify. *Id.*

BHM does not, however, provide any testing or analysis of LG’s Accused Products to establish that the [] are “representative” of any other device. CX-1067C (Zatkovich DWS) Q/A 379; RX-0670C (Jeffay RWS) Q/A 135. BHM asserts that it tested LG Smart Share on different devices, claiming they have the “same or substantially similar” operation, but does not provide evidence to support its claim. *Id.*

BHM also contends that a particular application operates the same regardless of which device is being used to access or use the application. RX-0670C (Jeffay RWS) Q/A 137; CX-1067C (Zatkovich DWS) Q/A 397. For example, BHM argues that certain functionalities within the third-party applications must be used by all products including that application, but that does not show that the devices are “representative.” *Id.* Different devices can be designed and function in different ways, and yet still run the same or similar applications. RX-0670C (Jeffay RWS) Q/A 137.

The record evidence demonstrates that []
RX-0632C (LG App. A); RX-0670C (Jeffay RWS) Q/A 139-43. For example, []

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[

]. *Id.* Similarly, [

]. *See*

RX-0670C (Jeffay RWS) Q/A 138.

Moreover, [

]. RX-0670C (Jeffay RWS) Q/A 142. BHM fails to identify the version of the applications it tested, and fails to show that different versions of the applications operate in the same manner. *Id.*

Accordingly, it is determined that BHM has failed to show that the two LG products it claims are representative of all LG products accused of infringing the '652 and '952 patents are indeed representative for purposes of infringement. Therefore, inasmuch as BHM did not analyze the following products separately, but instead relied on their assertion that the products functioned similar to the "representative" products in relevant aspect, BHM has failed to show that any of the following products infringe any claim of the '952 or '652 patent.

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4. Direct Infringement

a. LG Player Devices with Pandora

To show that LG's Player Devices with Pandora infringe the '952 and '652 patents, BHM relies on evidence from [], which it claims is a "representative" device. CX-1067C (Zatkovich DWS) Q/A 359. The evidence shows that [

]. See RX-0632C (LG App. A), (11); RX-0670C (Jeffay RWS) Q/A 199-200. In order to perform its infringement analysis, BHM [

]. *Id.* Inasmuch as [], BHM cannot establish that LG Player Devices associated with Pandora infringe the asserted claims of the '952 and '652 patents.⁶²

i. '952 Patent – Claim 9

The first element of claim 9⁶³ ("952-9a") includes two separate requirements: 1) "receiving, at an electronic device, a playlist . . . , the playlist identifying a plurality of songs,

⁶² Even though [], this initial determination includes a technical analysis of Pandora on LG Player Devices for completeness.

⁶³ Claim 9 of the '952 patent reads:

9. A method comprising:

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wherein ones of the plurality of songs are not stored on the electronic device,” and 2) the playlist is “assigned to the electronic device.” *See* RX-0670C (Jeffay RWS) Q/A 202.

The record evidence shows that LG Player Devices associated with Pandora do not meet ’952-9a under any party’s construction. *See, e.g., id.* at Q/A 202-17. BHM relies on a picture, [], and a declaration from Pandora as supporting that claim element ’952-9a is met. *Id.* at Q/A 202. The picture shows a television playing a song, but does not show that LG Player Device: (1) has a playlist; (2) receives that playlist; (3) that the playlist identifies a plurality of songs (as opposed to one); or (4) that the playlist was assigned to the device. *Id.* at Q/A 203.

[]. *See id.* at Q/A 204. The Pandora declaration [

]. *Id.* at Q/A 205. It is therefore determined that the evidence adduced by BHM is insufficient to prove that LG Player Devices associated with Pandora satisfy limitation ’952-9a.

BHM argues that the LG Player Devices associated with Pandora satisfy claim limitation ’952-9a because [

]. *See* CX-1067C (Zatkovich DWS) Q/A 363. BHM’s argument is based on its contention that []

receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device;

receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source; and

obtaining the ones of the plurality of songs from the at least one remote source.

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[]]. See CX-1067C (Zatkovich DWS) Q/A 362. [

]. RX-0670C (Jeffay RWS) Q/A 208.

BHM also relies on the [] as meeting step '952-9a.

CX-1067C (Zatkovich DWS) Q/A 361. [

]. RX-0670C (Jeffay RWS) Q/A 205. For example, [

]. *Id.*; JX-0015C (Pandora Decl.) at ¶ 7 (i) (“[].”);

CX-0383C ([] at PNDRA_00029-30. [

].

Inasmuch as [

[]]. See RX-0670C (Jeffay RWS) Q/A 205. At the hearing, Mr. Zatkovich testified that

[]]. Zatkovich Tr. 144-145. Yet,

Mr. Zatkovich testified that [

]. Zatkovich Tr. 145. Either way, BHM cannot escape the statement [

[]]. JX-0015C (Pandora Decl.) at ¶ 7(i); RX-0670C (Jeffay RWS) Q/A 205.

The fact that the [

]

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[] as claimed by BHM and required by the '952 claim language. [

]. Zatkovich Tr. 148; *see id.* at 146-147;

RX-0670C (Jeffay RWS) Q/A 209-10.

In arguing that the “playlist assigned to the electronic device” limitation is satisfied by Pandora, BHM’s expert also conflated the “assigned” and “receiving” limitations of claim 9. RX-0670C (Jeffay RWS) Q/A 202, 211. If a user is logged in to an electronic device, then the playlist may be provided to that electronic device, but that does not establish that it is “assigned to” or directed to that electronic device; it is only provided to that electronic device because the user is logged in. *Id.* This is evident from the fact that “receiving” is different than “assigning,” as Mr. Zatkovich testified, and that more is required for the claimed assigning than just sending the playlist. Zatkovich Tr. 114, 115; RX-0670C (Jeffay RWS) Q/A 212. Moreover, the fact that [

]. *See* Zatkovich Tr. 136.

BHM has also failed to show that LG Player Devices associated with Pandora satisfy limitations '952-9b and '952-9c of the '952 patent, which recite “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source; and obtaining the ones of the plurality of songs from the at least one remote source.” *See* RX-0670C (RWS Jeffay) Q/A 220-26.

As discussed above, BHM relies on [] and the Pandora declaration to show satisfaction of limitations '952-9b and '952-9c. CX-1067C (Zatkovich DWS) Q/A 366-67; RX-0670C (Jeffay RWS) Q/A 220, 224. None of these materials shows that LG Player Devices

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associated with Pandora practice these limitations under any party's construction for the same reasons discussed above for limitation '952-9a. See RX-0670C (Jeffay RWS) Q/A 220, 224.

BHM relies on the Pandora declaration, [

] JX-0015C (Pandora Decl.) at ¶ 7(i);

CX-0383C ([] at 0029; RX-0670C (Jeffay RWS) Q/A 220. The declaration, however, [

] RX-0670C (Jeffay RWS) Q/A 220, 224. For example,

nothing BHM relies on suggests that [

] *Id.* Indeed, the Pandora Declaration [

].

JX-0015C (Pandora Decl.), (¶¶ 7(iv)-(vii)); RX-0670C (Jeffay RWS) Q/A 220. One would not be able to determine whether this limitation is met without reviewing source code or documentation describing the particular implementation of the Pandora application, but BHM did not do either of these things. RX-0670C (Jeffay RWS) Q/A 220, 224.

To the extent BHM relies on the photograph cited for '952-9a to show satisfaction of '952-9b and '952-9c, BHM still cannot show that the claim limitations are satisfied. See RX-0670C (Jeffay RWS) Q/A 221, 224. BHM does not correlate the photograph with any evidence showing that LG Player Devices needed to receive information in order to obtain the song, even under BHM's construction of "obtaining" *Id.* For example, BHM has not adduced evidence showing that []

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[] *Id.* In fact, the Pandora Declaration [] JX-0015C (Pandora Decl.), (¶ 7(vi)); RX-0670C (Jeffay RWS) Q/A 221, 224. Moreover, [] *See* Zatkovich Tr. (108; RX-0670C (Jeffay RWS) Q/A 222, 225.

BHM also fails to allege that '952-9b and '952-9c are met under Respondents' and Staff's constructions of "enabling" and "obtain[ing]." RX-0670C (Jeffay RWS) Q/A 223, 226. In particular, BHM fails to show that [

[] *Id.* There is no evidence that LG Player Devices associated with Pandora [] *Id.* Rather, Mr. Zatkovich states that LG Player Devices associated with Pandora [] CX-1067C (Zatkovich DWS) Q/A 366;

RX-0670C (Jeffay RWS) Q/A 223, 226. Taking this allegation as true, the evidence shows that [

[] RX-0670C (Jeffay RWS) Q/A 223, 226. Moreover, the Pandora Declaration states that "[

[] JX-0015C (Pandora Decl.), (¶ 7(v)); RX-0670C (Jeffay RWS) Q/A 223, 226. Thus, BHM has not adduced evidence to show that LG Player Devices associated with Pandora "obtain[ing]" songs, under either Respondents' or Staff's constructions. *Id.*

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Therefore, it is determined that BHM has not shown infringement of claim 1 of the '952 patent by LG Player Devices associated with Pandora.⁶⁴

ii. '652 Patent – Claim 1

Independent claim 1 of the '652 patent is similar to independent claim 9 of the '952 patent, but recites several additional limitations.^{65,66} Compare JX-0007 ('952 patent) at col. 35,

⁶⁴ Inasmuch as asserted claim 14 of the '952 patent depends from claim 9, it is also determined that BHM has not shown infringement of claim 14 of the '952 patent by LG Player Devices with Spotify for the same reasons discussed with respect to claim 9.

⁶⁵ Claim 1 of the '652 patent reads as follows:

1. An electronic device comprising:
 - a) a network interface enabling the electronic device to receive an Internet radio broadcast and being further adapted to communicatively couple the electronic device to a central system;
 - b) a system enabling playback of audio content from a playlist assigned to the electronic device via the central system; and
 - c) a control system associated with the network interface and the system enabling playback of the audio content indicated by the playlist, and adapted to:
 - i) enable a user of the electronic device to select a desired mode of operation from a plurality of modes of operation comprising an Internet radio mode of operation and a playlist mode of operation;
 - ii) receive and play the Internet radio broadcast when the desired mode of operation is the Internet radio mode of operation; and
 - iii) when the desired mode of operation is the playlist mode of operation:
 - receive the playlist assigned to the electronic device from the central system, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device;
 - receive information from the central system enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source;
 - obtain the ones of the plurality of songs from the at least one remote source; and
 - play the audio content indicated by the playlist.

⁶⁶ To the extent limitations in claim 1 of the '652 patent mirror limitations in claim 9 of the '952 patent, the limitations of claim 1 are not satisfied for the same reasons discussed above with respect to claim 9.

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lns. 23-32 *with* JX-0009 ('652 patent) at col. 34, lns. 6-35. BHM concedes that LG Player Devices associated with Pandora alone do not meet these additional limitations and thus relies on the combination of Pandora with either vTuner or a web browser (for accessing Shoutcast). CX-1067C (Zatkovich DWS) Q/A 372-74, 382-84; RX-0670C (Jeffay RWS) Q/A 227-28.

Claim 1 of the '652 patent has several additional limitations not recited by '952 patent claim 9, which BHM identifies as "playlist related elements," including, among others, a "central system" with certain requirements, selecting a "desired mode of operation from a plurality of modes of operation" including "playlist mode of operation," and playing the audio content indicated by the playlist. CX-1067C (Zatkovich DWS) Q/A 374, 384; RX-0670C (Jeffay RWS) Q/A 228. The evidence adduced by BHM, however, does not show that any of these elements are met by LG's Accused Products with Pandora. *Id.*

In addition, to the extent [] as required by limitations '652-1c in conjunction with '652-1f through '652-1h. RX-0670C (Jeffay RWS) Q/A 229. In the context of the '652 patent claims, an electronic device is "adapted to," or "configured to" perform a series of tasks when the device contains computer code or program instructions sufficient to perform the operations recited in the claims without additional modification, configuration or the addition of further program instructions. *Id.* Inasmuch as [

]. *Id.*

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Moreover, LG's Player Devices associated with Pandora do not infringe with respect to vTuner and a web browser/Shoutcast for the reasons stated below in the sections addressing Pandora and Shoutcast.

iii. '652 Patent – Claim 11

It is determined that LG Player Devices associated with Pandora do not infringe claim 11 of the '652 patent, because they do not infringe claim 1, from which claim 11 depends.

To show satisfaction of claim 11, BHM relies on the combination of Pandora with either vTuner or a web browser (for accessing Shoutcast). CX-1067C (Zatkovich DWS) Q/A 375-76, 385. BHM cites as evidence Wireshark traces and a photograph of an LG Player Device allegedly displaying the album cover image during playback of a song. CX-1067C (Zatkovich DWS) Q/A 375-76, 385; RX-0670C (Jeffay RWS) Q/A 231. This evidence is not sufficient to show satisfaction of claim 11 because 1) the timing of the display of the album art is not correlated with Wireshark traces, 2) nothing suggests a request was made, if at all, while the song was playing, and 3) nothing suggests supplemental information was received from a "remote server" and not a central system or remote source. RX-0670C (Jeffay RWS) Q/A 232.

Indeed, the Pandora declaration states that “[
].” RX-0670C (Jeffay RWS) Q/A 232; *see. e.g.*, JX-0015C (Pandora Decl.), (¶ 7(iv)); *see also* CX-1067C (Zatkovich DWS) Q/A 361 (relying on the Pandora Declaration). “[

].” *Id.*; RDX-1035C (JX-0015C (Pandora Decl.)).

The Wireshark data BHM cites do not show that LG devices with Smart Share practice '652 patent claim 11. RX-0670C (Jeffay RWS) Q/A 233-36. In particular, the evidence shows

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that [

] RX-0670C (Jeffay RWS) Q/A 235; *see, e.g.*,
RX-0730C (Frame 10775 of CPX-0150C); RX-0731C (Frame 11172 of CPX-0150C);
CPX-0150C (Wireshark Trace); RDX-1036–1037 (RX-0670C (RWS Jeffay) Q/A 235). [

].

Id.; RX-0732C (Frame 11376); RDX-1039–1040 (RX-0670C (Jeffay RWS) Q/A 235).

[

] RX-0670C (Jeffay RWS) Q/A 235. Rather, this confirms [

] *Id.*; *see, e.g.*, JX-0015C

(Pandora Decl.), (¶ 7(iv)). Claim 11, however, requires that the request is sent “in real-time while the song is playing.” JX-0009 (’652 patent) at col. 34, lns. 65-67.

Therefore, it is determined that LG Player Devices associated with Pandora do not satisfy the additional limitations of claim 11 of the ’652 patent.

iv. ’652 Patent – Claim 13

It is determined that LG Player Devices associated with Pandora do not infringe ’652 patent claim 13 because they do not infringe claim 1, from which claim 13 depends.

b. LG Player Devices with Spotify

BHM has failed to adduce evidence showing that LG Devices with Spotify infringe the asserted claims of the ’952 and ’652 patents. Inasmuch as [

] *See*

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RX-0670C (Jeffay RWS) Q/A 281; RX-0632C (LG App. A). Instead, []
]. CX-1067C (Zatkovich DWS) Q/A 343-57, 374, 376, 377-78. The evidence
shows, []].

RX-0670C (Jeffay RWS) Q/A 241-55; RX-0632C (LG App. A). []
]. RX-0670C

(Jeffay RWS) Q/A 248-55; RDX-1041C--1044C (RX-0670C (Jeffay RWS) Q/A 248-54);
CX-1067C (Zatkovich DWS) Q/A 347-48, 376. Thus, BHM cannot show a violation of section
337 based on direct infringement at the time of importation.⁶⁷

i. '952 Patent – Claim 9

Step '952-9a of method claim 9 has two requirements: first, a playlist identifying a
plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device;
and second, that the electronic device receive a playlist assigned to the electronic device.
JX-0007 ('952 patent) at col. 35, lns. 24-27; RX-0670C (Jeffay RWS) Q/A 257. BHM has not
shown that LG Player Devices with Spotify meet '952-9a under any proposed construction. *See*
RX-0670C (Jeffay RWS) Q/A 257-73.

For the first requirement, BHM alleges that LG Player Devices with Spotify receive a
playlist. CX-1067C (Zatkovich DWS) Q/A 347. As discussed above, BHM's construction of
"playlist" requires that the song titles returned in the alleged playlist are "arranged to be played
in sequence." The adduced evidence does not show that this limitation is satisfied under BHM's
construction, but rather []]. *See* CX-1067C
(Zatkovich DWS) Q/A 347. The evidence also fails to show that []]

⁶⁷ Even though BHM has not shown that [], this initial determination includes a technical
analysis of Spotify on LG Player Devices for completeness.

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[] are “for [] playback,” as required by the adopted construction, *i.e.*, “playing audio content stored on the electronic device.” *Id.*; RX-0670C (Jeffay RWS) Q/A 269; Joint List of Proposed Constructions at 1, 4. The record evidence demonstrates that []

].
See RX-0670C (Jeffay RWS) Q/A 84-90, 93, 94; Zatkovich Tr. 166-168. BHM has also failed to show whether []

[]]. RX-0670C (Jeffay RWS) Q/A 124. Inasmuch as LG Player Devices with Spotify []
[], there can be no infringement under the adopted construction of “playlist.”

For the second requirement, BHM contends that the limitation of a “playlist assigned to the electronic device” is met when Spotify playlist information is directed to and received at “the unique IP address associated with the LG [Player] Device.” CX-1067C (Zatkovich DWS) Q/A 347. In particular, BHM asserts []

[]]. *Id.* at Q/A 347, 349; RX-0670C (Jeffay RWS) Q/A 257, 258, 262, 263.

BHM’s analysis is flawed because its expert testified that “[]” CX-1067C (Zatkovich DWS) Q/A 349 (emphasis added). This testimony is consistent with the evidentiary record, which shows []

[]]. RX-0670C (Jeffay RWS) Q/A 264, 265, 267; CPX-0038C, (SPOT-BHM-SC-000254–256, 238–241, 564–568); RX-0733C (Spotify Decl.); CX-1403C (Spotify Decl.). [] does not satisfy claim 9 of the ’952 patent because

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the claim requires that the playlist is “assigned to the electronic device.” RX-0670C (Jeffay RWS) Q/A 268.

In addition, the Spotify playlist information [].

Rather, BHM’s testing showed that []

[] RX-0670C (Jeffay RWS) Q/A 263. Even if BHM were correct in its contention, []

[] BHM’s expert testified consistently, stating that [] *Id.*

at Q/A 259, 262; Zatkovich Tr. 109-112.

Moreover, BHM’s argument conflates the “assigning” limitation with “receiving,” as separately recited in claim 9 of the ’952 patent. RX-0670C (Jeffay RWS) Q/A 258, 259. The claim requirement of “receiving” a playlist is different from the claimed “assigned to an electronic device,” and to show both limitations requires two different operations. RX-0670C (Jeffay RWS) Q/A 258, 259; Zatkovich Tr. 113. BHM nevertheless argues that LG Player Devices with Spotify satisfy limitation ’952-9a when []

[] CX-1067C (Zatkovich DWS) Q/A 347.

Turning now to limitations ’952-9b and ’952-9c, *i.e.*, “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source; and obtaining the ones of the plurality of songs from the at least one

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remote source,” BHM has not adduced evidence to show that the LG Player Devices associated with Spotify satisfy these limitations under any construction.

To support its infringement analysis, BHM relies on a picture of a television showing a version of Spotify running on a single LG Player Device (allegedly a Blu-ray player), [

], and a “display of song titles for songs not stored on the electronic device, coupled with the capability for a user to navigate to and select any one of the songs in the playlist for playback.” *See* CX-1067C (Zatkovich DWS) Q/A 352, 353.

BHM argues that, inasmuch as a photograph of an LG TV allegedly shows the output of an LG Blu-ray player, [], playing a song, the LG device must have necessarily practiced ’952-9b and ’952-9c. *See* RX-0670C (Jeffay RWS) Q/A 276, 279; CX-1067C (Zatkovich DWS) Q/A 352, 353. The photographs, however, do not establish that information [] was received, enabling the electronic device to obtain any songs, as required by ’952-9b and ’952-9c. BHM fails to correlate the photograph with any evidence showing that the LG Player Device actually “obtained” a song under BHM’s construction. There is also no evidence that LG Player Devices with Spotify []. RX-0670C (Jeffay RWS) Q/A 276, 277. LG Player Devices with Spotify thus cannot satisfy ’952-9b or ’952-9c under BHM’s proposed construction.

[

]. CX-1067C (Zatkovich DWS) Q/A 352, 353. For the same reasons explained above with respect to ’952-9a, [

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[]
RX-0670C (Jeffay RWS) Q/A 276, 277; Zatkovich Tr. 108.

BHM did not allege that '952-9b and '952-9c are met under OUII's and Respondents' (adopted above) proposed constructions of "enabling" and "obtain[ing]." RX-0670C (Jeffay RWS) Q/A 275-280. BHM cannot show [

]. See

RX-0670C (Jeffay RWS) Q/A 87-90, 93-94; Zatkovich Tr. 166-168. The experts for LG and BHM both testified that [], such that LG Player Devices with Spotify are unable to "obtain[]" songs under the adopted claim construction. RX-0670C (Jeffay RWS) Q/A 275-80.

Therefore, it is determined that BHM has not shown infringement of claim 1 of the '952 patent by LG Player Devices associated with Spotify.⁶⁸

ii. '652 Patent – Claim 1

Independent claim 1 of the '652 patent is similar to independent claim 9 of the '952 patent, but recites several additional limitations.⁶⁹ Compare JX-0007 ('952 patent) at col. 35, lns. 23-32 with JX-0009 ('652 patent) at col. 34, lns. 6-35. BHM concedes that LG Player Devices with Spotify alone do not meet these additional limitations and thus relies on the combination of Spotify with either vTuner or a web browser (for accessing Shoutcast). See CX-1067C (Zatkovich DWS) Q/A 372-74, 382-84; RX-0670C (Jeffay RWS) Q/A 282-84.

⁶⁸ Inasmuch as asserted claim 14 of the '952 patent depends from claim 9, it is also determined that BHM has not shown infringement of claim 14 of the '952 patent by LG Player Devices with Spotify for the same reasons discussed with respect to claim 9.

⁶⁹ To the extent limitations in claim 1 of the '652 patent mirror limitations in claim 9 of the '952 patent, the limitations of claim 1 are not satisfied for the same reasons discussed above with respect to claim 9.

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BHM relies on its analysis of '952 patent claim 9 to show that what it deems “playlist related elements” are met with respect to '652 patent claim 1. As discussed above, the LG Player Devices with Spotify do not satisfy the limitations of '652 patent claim 1 for the same reasons they do not satisfy the limitations of '952 patent claim 9.

Claim 1 of the '652 patent has several additional limitations not recited by '952 patent claim 9, which BHM identifies as “playlist related elements,” including, among others, a “central system” with certain requirements, selecting a “desired mode of operation from a plurality of modes of operation” including “playlist mode of operation,” and playing the audio content indicated by the playlist. CX-1067C (Zatkovich DWS) Q/A 374, 384; RX-0670C (Jeffay RWS) Q/A 283. The evidence adduced by BHM does not show that any of these elements are met by LG’s Player Devices with Spotify. *See id.*

In addition, [

]. RX-0670C (Jeffay RWS) Q/A 284. In the context of the '652 patent claims, [

]. *Id.*; *see also* RX-0463C (Jeffay DWS) Q/A 284. [

]. RX-0670C (Jeffay RWS)

Q/A 284.

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LG Player Devices with Spotify also do not infringe '652 patent claim 1 with respect to vTuner and a web browser with Shoutcast for the reasons identified below in the sections addressing vTuner and Shoutcast.

iii. '652 Patent – Claim 11

LG Player Devices associated with Spotify do not infringe claim 11 of the '652 patent, because they do not infringe claim 1 from which claim 11 depends.

To show satisfaction of claim 11, BHM relies on the combination of Spotify with either vTuner or a web browser (for accessing Shoutcast). CX-1067C (Zatkovich DWS) Q/A 375-76, 385. BHM cites as evidence Wireshark traces and photographs of an LG Player Device with Spotify allegedly displaying the album cover image during playback of a song, but BHM does not explain how those traces and the pictures show infringement of '652 patent claim 11. *See* CX-1067C (Zatkovich DWS) Q/A 375-76, 385; RX-0670C (Jeffay RWS) Q/A 285. The evidence is not sufficient to show infringement because 1) BHM fails to correlate the timing of the display of the album art with the Wireshark traces, 2) nothing suggests that a request was made while the song was playing, and 3) nothing suggests [

]. RX-0670C (Jeffay

RWS) Q/A 285.

iv. '652 Patent – Claim 13

It is determined that LG Player Devices with Spotify do not infringe '652 patent claim 13 because, as discussed above, they do not infringe claim 1 from which claim 13 depends.

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c. LG Mobile and Player Devices with Smart Share

i. '952 Patent – Claim 9

The first step of method claim 9, step '952-9a, has two requirements: first, a playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device; and second, that the electronic device receive a playlist assigned to the electronic device. JX-0007 ('952 patent) at col. 35, lns. 24-27. BHM has not adduced evidence to show that LG Smart Share satisfies '952-9a under any proposed construction.

For the first requirement, BHM alleges that [

] CX-1067C (Zatkovich DWS) Q/A 281-82, 301. [

].

RX-0670C (Jeffay RWS) Q/A 292; *see also id.* Q/A 413-18. BHM nevertheless contends that

[

] Zatkovich Tr. 187-188. With respect to

the Ninja Jukebox prior art reference, Mr. Zatkovich argued that “[a] catalog of songs is not a playlist.” CX-1400C (Zatkovich RWS) Q/A 48; *see also* Zatkovich Tr. 1562. If, as Mr.

Zatkovich contends, a catalog of songs is not a playlist, [

].

BHM's citations to Wireshark traces do not prove that [

] *See* CX-1067C (Zatkovich DWS) Q/A 281-82,

301. That the response may include [

].

RX-0670C (Jeffay RWS) Q/A 289, 292. Furthermore, the traces do not indicate that [

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[

]. *Id.* BHM contends that [

]. *Id.* at Q/A 290; CX-1067C (Zatkovich DWS) Q/A 281-82, 301.

BHM's reliance on photographs does not cure the deficiencies in the cited evidence. *See* CX-1067C (Zatkovich DWS) Q/A 281-82, 301; RX-0670C (Jeffay RWS) Q/A 289. BHM, for example, cites to a picture of a single mobile phone showing folders on a personal computer (that is not made by LG) and a picture of a single mobile phone showing songs presumably in one of those folders to support its infringement argument. CX-1067C (Zatkovich DWS) Q/A 281-82. None of these photographs provides additional support, nor do they (or the traces) identify which "ones of the plurality of songs are not stored on the electronic device," as required by claim 9. RX-0670C (Jeffay RWS) Q/A 289.

The portion of limitation '952-9a that recites "receiving, at an electronic device, a playlist assigned to the electronic device" includes two separate requirements: 1) that the device "receiv[e] a playlist," and 2) that the playlist is "assigned to the electronic device." RX-0670C (Jeffay RWS) Q/A 293.

BHM contends that the "assigned to the electronic device" portion is satisfied by the accused products because [

].

CX-1067C (Zatkovich DWS) Q/A 283; *see also* RX-0670C (Jeffay RWS) Q/A 296-97. The evidence, however, does not support this contention. [

]. RX-0670C

(Jeffay RWS) Q/A 297. The evidence also does not show [

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[]]. CX-1067C (Zatkovich DWS) Q/A 280-84, 301; RX-0670C (Jeffay RWS) Q/A 296.

The evidence BHM offers shows that the device [

]]. CX-1067C (Zatkovich DWS) Q/A 282, 301; RX-0670C (Jeffay RWS) Q/A 293-94.

Yet BHM's expert Mr. Zatkovich testified that "receiving" is different than "assigning," and that more is required for assigning in claim 9 than sending the playlist. Zatkovich Tr. 114, 115.

Despite this testimony, BHM does not provide evidence of an alleged assignment and conflates the separate "assigned" and "receiving" requirements. RX-0670C (Jeffay RWS) Q/A 293, 296.

The evidence adduced at the hearing also fails to show that LG devices with Smart Share satisfy limitation '952-9b and '952-9c, which recite "receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source; and obtaining the ones of the plurality of songs from the at least one remote source." To show satisfaction of these limitations by LG Mobile Devices, BHM relies on a picture of a mobile phone purportedly playing a song from a personal computer (that is not made by LG), and to show satisfaction of these limitations by LG Player Devices, BHM relies on a picture of a Player Device purportedly playing a song from a remote device. *See* CX-1067C (Zatkovich DWS) Q/A 286-87, 303-05; RX-0670C (Jeffay RWS) Q/A 305. BHM also relies on Wireshark packet traces. *Id.* Nevertheless, none of these materials shows that LG Accused Products with LG Smart Share practice these limitations. RX-0670C (Jeffay RWS) Q/A 305-09.

BHM contends that because there is a picture of a device with LG Smart Share playing a song and a Wireshark trace that allegedly shows []], then the LG device must have necessarily performed this claim step. CX-1067C (Zatkovich DWS) Q/A 286-87, 303-05. The pictures and traces do not establish what BHM contends. RX-0670C (Jeffay RWS) Q/A 305,

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307. It is not clear from the pictures or traces what the devices obtained, or what provided the information to the devices. *Id.*

With respect to the Wireshark traces, BHM fails to show that [] is “enabling the electronic device to obtain” the song. RX-0670C (Jeffay RWS) Q/A 305, 307. BHM also fails to provide evidence correlating the photographs to the Wireshark traces, and nothing suggests these different types of tests were done on the same devices or at the same time. *Id.* Thus, there is no evidence that [] as “information” actually enabled the devices to obtain the song, or were even []. *Id.*

Claim 9 also requires that the information enable the device to obtain “the ones” of the plurality of songs, *i.e.*, more than one song. RX-0670C (Jeffay RWS) Q/A 305, 307. BHM, however, only shows []. CX-1067C (Zatkovich DWS) Q/A 286-87, 303-05; RX-0670C (Jeffay RWS) Q/A 305, 307. This conflicts with the claim’s plain meaning and with BHM’s construction of playlist, which requires playing the songs in sequence. RX-0670C (Jeffay RWS) Q/A 305, 307. In addition, [

]. RX-0670C (RWS Jeffay) Q/A 307-08; *see also* Zatkovich Tr. 1546-1547 (explaining []).

ii. ’952 Patent – Claim 14

It is determined that LG Mobile and Player Devices with Smart Share do not infringe ’952 patent claim 14 because, as discussed above, they do not infringe claim 9 from which claim 14 depends. The adduced evidence also does not demonstrate satisfaction of the additional claim 14 limitations by the accused devices. Specifically, the evidence does not show satisfaction of

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the following limitations: “receiving the playlist from the personal audio network, wherein the personal audio network server enables a user to assign the playlist to the electronic device” and “receiving information from the personal audio network server enabling the electronic device to obtain the ones of the plurality of songs from the at least one remote source.”

BHM’s expert Mr. Zatkovich testified that these limitations are met. RX-0463C (Jeffay DWS) Q/A 311; *see* CX-1067C (Zatkovich DWS) Q/A 288, 306. As evidence, BHM provides a LG Smart Share screen describing its features. *See id.* [

“receiv[es] the playlist . . . from the personal audio network,” “the personal audio network server enables a user to assign the playlist to the electronic device,” or “receiv[es] information from the personal audio network server enabling the electronic device to obtain the ones of the plurality of songs from the at least one remote source,” as recited in claim 14. *Id.*

iii. ’652 Patent – Claim 1

Independent claim 1 of the ’652 patent is similar to claim 9 of the ’952 patent, but recites several additional limitations. *Compare* JX-0007 (’952 patent) at col. 35, lns. 23-32 *with* JX-0009 (’652 patent) at col. 34, lns. 6-35. BHM relies on the combination of Smart Share with either vTuner or a web browser (for accessing Shoutcast) on Player Devices and Smart Share with Slacker on Mobile Devices to demonstrate infringement of these additional limitations. CX-1067C (Zatkovich DWS) Q/A 372-74, 382-84, 390-92; RX-0670C (Jeffay RWS) Q/A 313-14.

BHM relies on its analysis of ’952 patent claim 9 as showing that what it calls the “playlist related elements” are met with respect to ’652 patent claim 1. *See id.* LG Player and

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Mobile Devices do not meet '652 patent claim 1 for the same reasons, discussed above, that they do not meet '952 patent claim 9. *See* RX-0670C (Jeffay RWS) Q/A 288-309.

Claim 1 of the '652 patent has several additional limitations not recited by '952 patent claim 9 including, among others, a “central system” with certain requirements, selecting a “desired mode of operation from a plurality of modes of operation” including “playlist mode of operation,” and playing the audio content indicated by the playlist. CX-1067C (Zatkovich DWS) Q/A 374, 384, 392; RX-0670C (Jeffay RWS) Q/A 314. BHM, however, does not provide evidence that any of these elements are met by LG's Accused Products with Smart Share. *Id.*

In addition, LG's Accused Products with Smart Share do not infringe '652 patent claim 1 with respect to vTuner, a web browser/Shoutcast, and Slacker for the reasons addressed below in the sections addressing vTuner, Shoutcast, and Slacker. *See* RX-0670C (RWS Jeffay) Q/A 313, 348-60, 372-94.

iv. '652 Patent – Claim 11

It is determined that LG Devices with Smart Share do not infringe '652 patent claim 11 because, as discussed above, they do not infringe claim 1 from which claim 11 depends. *See* RX-0670C (Jeffay RWS) Q/A 315-321; *see also* RX-0670C (Jeffay RWS) Q/A 288-309, 313-14. BHM accuses only LG Player Devices of infringing '652 patent claim 11 and, as for claim 1, BHM relies on the combination of Smart Share with either vTuner or a web browser to show infringement of this claim. CX-1067C (Zatkovich DWS) Q/A 375-76, 385; RX-0670C (Jeffay RWS) Q/A 315.

As evidence, BHM cites Wireshark traces and a photograph of an LG Player Device purportedly displaying the album cover image during playback of a song. CX-1067C (Zatkovich DWS) Q/A 375-76, 385; RX-0670C (Jeffay RWS) Q/A 316. This evidence is insufficient to

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show infringement because 1) BHM fails to correlate the timing of the display of the album art with Wireshark traces, 2) nothing suggests that the request was made while song was playing, and 3) nothing suggests [

] RX-0670C (Jeffay RWS) Q/A 316.

In particular, the portion of the Wireshark trace that BHM claims is [

] RX-0670C (Jeffay RWS) Q/A 319;

RX-0728C (Wireshark frame 1422); RDX-1045C (RX-0670C (Jeffay RWS) Q/A 319); CPX-0187C (Wireshark data); *see* CX-1067C (Zatkovich DWS) Q/A 376. Claim 11, however, requires the supplemental information request be “in real-time while the song is playing.” JX-0009 (’652 patent) at col. 34, lns. 65-67. As Dr. Jeffay testified, [

] *See. e.g.*, RX-0670C (Jeffay RWS) Q/A 321.

Moreover, the evidence shows that the information BHM contends comprises [

] RX-0670C (Jeffay RWS) Q/A 319, 320 ([] at CX-1067C

(Zatkovich DWS) Q/A 301, []; CPX-0187C (Wireshark trace data); RX-0729C (Wireshark frame 1424); RDX-1046C (RX-0670C (RWS Jeffay) Q/A 319). In addition, even if the information did [

] .

Id.; RX-0728C (Wireshark frame 1422); RDX-1047C (RX-0670C (Jeffay RWS) Q/A 319).

Therefore, [

] .

RX-0670C (Jeffay RWS) Q/A 319.

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d. **LG Mobile Devices with Slacker**

i. **The Representative Product**

BHM relies on [] as its representative product with respect to the infringement analysis, but admits that [

]. *See* Zatkovich Tr. 161-162;

RX-0632C (LG App. A), (2); RX-0670C (Jeffay RWS) Q/A 325-26. Before doing any analysis of the Slacker application [

]. *See id.*

ii. **'952 Patent – Claim 9**

Claim limitation '952-9a has two requirements: first, a playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device; and second, that the electronic device received a playlist assigned to the electronic device. RX-0670C (Jeffay RWS) Q/A 293. The evidence shows that LG Mobile Devices associated with Slacker do not satisfy either requirement. *Id.* at Q/A 327-40.

For the first requirement, BHM relies on photos of the modified LG E970 and packet traces to show the modified device communicating with Slacker servers. RX-0670C (Jeffay RWS) Q/A 328; *see* CX-1067C (Zatkovich DWS) Q/A 331. BHM argues that the photo shows [], and also contends that the Wireshark traces show that []. RX-0670C (Jeffay RWS) Q/A 329; CX-1067C (Zatkovich DWS) Q/A 331. Nevertheless, BHM did not identify which “ones of the plurality of songs are not stored on the device” as required by '952-9a. RX-0670C (Jeffay RWS) Q/A 329; *see* CX-1067C (Zatkovich DWS) Q/A 331.

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Neither the photos nor the packet traces show []].

RX-0670C (Jeffay RWS) Q/A 329; CX-1067C (Zatkovich DWS) Q/A 331. Accordingly, this evidence is insufficient to show satisfaction of the claim limitation.

The evidence also does not show that [

] RX-0670C (Jeffay RWS)

Q/A 329; *cf.* CX-1067C (Zatkovich DWS) Q/A 331. The evidence shows that [

] Zatkovich Tr. 108; RX-0670C (Jeffay RWS) Q/A 338. The

evidence does not show whether or not [

]. *Id.*

The second requirement of '952-9a is receiving a playlist assigned to the electronic device. BHM contends that LG Mobile Devices associated with Slacker [

] CX-1067C (Zatkovich DWS) Q/A 331. In particular, BHM alleges that the

Wireshark traces show that [

] CX-1067C (Zatkovich DWS) Q/A 331. This action,

however, [

] *See* Zatkovich Tr. 150-151. The evidence shows that [

] RX-0670C (Jeffay RWS) Q/A 335-36.

LG Mobile Devices associated with Slacker also do not satisfy limitation '952-9b, "receiving, at the electronic device, information enabling the electronic device to obtain the ones

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of the plurality of songs from at least one remote source,” or limitation ’952-9c, “obtaining the ones of the plurality of songs from the at least one remote source.” *See* RX-0670C (Jeffay RWS) Q/A 342-47.

BHM’s reliance on photographs and packet traces is insufficient to show satisfaction of these two limitations. A photograph of [

]

RX-0670C (Jeffay RWS) Q/A 343, 346; CX-1067C (Zatkovich DWS) Q/A 332, 336. Likewise, Wireshark traces do not show that [

]. RX-0670C (Jeffay RWS) Q/A 343, 346. No evidence correlates the photos with the packet traces, and nothing suggests that these different types of tests were recorded using the same devices or at the same time. *Id.*

iii. ’652 Patent – Claim 1

The evidence does not support BHM’s contentions that LG Mobile Devices with Slacker infringe ’652 patent claim 1. With respect to what BHM calls “playlist functionality” and “playlist related elements,” BHM relies on the same reasons underlying its contention that LG Mobile Devices associated with Slacker infringe ’952 patent claim 9. *See* CX-1067C (Zatkovich DWS) Q/A 392; RX-0670C (Jeffay RWS) Q/A 348-60. The analysis set forth above with respect to claim 9 of the ’952 patent vis-à-vis LG Mobile Devices with Slacker apply equally to claim 1 of the ’652 patent.

Claim 1 of the ’652 patent has several additional limitations not recited in ’952 patent claim 9, including a “central system” with certain requirements, selecting a “desired mode of operation from a plurality of modes of operation,” a “playlist mode of operation,” and playing

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audio content indicated by the playlist. RX-0670C (Jeffay RWS) Q/A 350, 352; CX-1067C (Zatkovich DWS) Q/A 392.

For the requirement in '652 patent claim 1 that the electronic device is enabled to "receive an Internet radio broadcast," BHM fails to show that []]. Zatkovich Tr. 106-107; RX-0670C (Jeffay RWS) Q/A 352. There is no evidence showing that LG Mobile Devices include []]. Thus, BHM has not shown that LG Mobile Devices associated with Slacker are "enabled . . . to receive an Internet radio broadcast" []]. RX-0670C (Jeffay RWS) Q/A 352.

Further, inasmuch as BHM uses []]

[]]. RX-0670C (Jeffay RWS) Q/A 355. Accordingly, it is determined that LG Mobile Devices associated with Slacker do not infringe '652 patent claim 1.

iv. '652 Patent – Claim 11

It is determined that LG Mobile Devices associated with Slacker (alone or with Google Play Music) do not infringe claim 11 of the '652 patent because they do not infringe claim 1, from which claim 11 depends.

Moreover, BHM fails to establish that LG Mobile Devices associated with Slacker satisfy the additional limitations of claim 11. RX-0670C (Jeffay RWS) Q/A 362, 368. In particular, the Wireshark traces and photographs BHM relies on fail to show that LG Mobile Devices associated with Slacker satisfy the limitations of claim 11. *Id.* at Q/A 362. For example, BHM

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does not correlate the timing of the display of the album art shown in the photograph with the packet traces. *Id.* at Q/A 363. The evidence does not show that [

], as required by claim 11. *Id.* The evidence also does not show that

[

], *Id.*

v. '652 Patent – Claim 13

Inasmuch as claim 13 depends from claim 1, for the same reasons it was determined that LG Mobile Devices associated with Slacker (alone or in combination with another application) do not infringe claim 1, it is determined that they do not infringe claim 13.

e. LG Player Devices with vTuner

BHM concedes that vTuner alone does not infringe any asserted '652 patent claim, and instead relies on vTuner in combination with either LG Smart Share, Spotify, or Pandora to show infringement. CX-1067C (Zatkovich DWS) Q/A 372-74; RX-0670C (Jeffay RWS) Q/A 376-80. The evidence adduced by BHM is insufficient to show that LG Player Devices associated with vTuner infringe the asserted '652 patent claims.

i. '652 Patent – Claim 1

BHM's infringement allegations for '652 patent claim 1 rely on its allegations, discussed above, for '952 patent claim 9 for LG Smart Share, Spotify, and Pandora. CX-1067C (Zatkovich DWS) Q/A 374. It is determined that LG Devices with vTuner do not infringe '652 patent claim 1 for the same reasons discussed above with respect to LG Smart Share, Spotify, and Pandora vis-à-vis claim 9 of the '952 patent.

In addition, '652 patent claim 1 requires that the electronic device is "adapted to," or "configured to" perform a series of tasks. JX-0009 ('652 patent) at col. 34, lns. 6-35. Inasmuch

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as [

]. *Id.*; RX-0632 (LG App. A), (11-32). The LG Player Devices associated with vTuner therefore do not infringe claim 1 of the '652 patent.

ii. '652 Patent – Claim 11

Asserted claim 11 of the '652 patent depends from claim 1, discussed above. For the same reasons discussed above with respect to claim 1, it is determined that the LG Player Devices with vTuner do not infringe claim 11 of the '652 patent.

iii. '652 Patent – Claim 13

Asserted claim 13 of the '652 patent depends from claim 1, discussed above. For the same reasons discussed above with respect to claim 1, it is determined that the LG Player Devices with vTuner do not infringe claim 13 of the '652 patent.

f. LG Player Devices with Shoutcast

BHM concedes that LG Player Devices with a web browser alone do not infringe any asserted '652 patent claims, and relies on a web browser “for Receipt of Internet Radio Broadcasts” in combination with either LG Smart Share, Spotify, or Pandora. CX-1067C (Zatkovich DWS) Q/A 382-86; RX-0670C (RWS Jeffay) Q/A 388-89. The evidence shows that LG Player Devices with a web browser do not infringe the asserted '652 patent claims.

i. '652 Patent – Claim 1

BHM's infringement allegations for '652 patent claim 1 rely on its allegations for '952 patent claim 9 for LG Smart Share, Spotify, and Pandora. CX-1067C (Zatkovich DWS) Q/A 384. It is determined that LG Player Devices with Shoutcast do not infringe '652 patent claim 1

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for the same reasons discussed above with respect to LG Smart Share, Spotify, and Pandora vis-à-vis claim 9 of the '952 patent.

In addition, '652 patent claim 1 requires that the electronic device is “adapted to” or “configured to” perform a series of tasks. JX-0009 ('652 patent) at col. 34, lns. 6-35. Inasmuch as [

] See RX-0632 (LG App. A), (11-32). Moreover, BHM fails to show that [

] CX-1067C (Zatkovich DWS) Q/A 380-86;

RX-0670C (Jeffay RWS) Q/A 392. It is therefore determined that LG Player Devices associated with a web browser do not infringe claim 1 of the '652 patent. RX-0670C (Jeffay RWS) Q/A 388-92.

ii. '652 Patent – Claim 11

It is determined that LG Player Devices with a web browser do not infringe '652 patent claim 11 because they do not infringe claim 1 from which claim 11 depends.

iii. '652 Patent – Claim 13

It is determined that LG Player Devices with a web browser do not infringe '652 patent claim 13 because they do not infringe claim 1 from which claim 13 depends.

5. Indirect Infringement

a. Proof of Direct Infringement

To prove indirect infringement of the asserted claims, BHM must point to specific instances of direct infringement by third parties or show that the accused LG products necessarily infringe. *Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at

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32, 36. If evidence of specific instances of direct infringement is not provided, circumstantial evidence may be used to prove indirect infringement, but only “when the evidence shows that the accused products were intended to be used only to practice the infringing method and that method was explicitly taught, for example, by product manuals.” *Id.* at 33, 36. But “excerpts from user manuals as evidence of underlying direct infringement by third parties of products that can be used in a non-infringing manner are by themselves insufficient to show the predicate acts necessary for inducement of infringement.” *Mirror Worlds*, 692 F.3d at 1360-62.

BHM’s expert Mr. Zatkovich takes the position that the asserted patents are directly infringed by BHM’s own experts, LG’s employees and agents, and end users. *See, e.g.*, CX-1067C (Zatkovich DWS) Q/A 292-93, 310-11, 325, 356, 367-69; RX-0670C (Jeffay RWS) Q/A 398. As explained above, BHM cannot establish direct infringement based on the activities of its experts or LG’s employees and agents. Regarding end users of the accused LG products, BHM has not adduced evidence showing any specific instance of one or more end users performing each element of the asserted claims. *See, e.g.*, CX-1067C (Zatkovich DWS) Q/A 293, 311, 325, 356, 367-69; *see also* RX-0670C (Jeffay RWS) Q/A 397, 399-400.

For example, BHM contends that [
], CX-1067C (Zatkovich DWS) Q/A 293;
 CX-1349C ([
]), (LG-ITC882-00010534). [
]. CX-1349C ([
]), (LG-ITC882-00010534). BHM makes
 similar accusations for the other accused applications. *See, e.g.*, CX-1067C (Zatkovich DWS)
 Q/A 293, 311, 325, 356, 367-69. For example, BHM contends that “[
].” CX-1067C (Zatkovich DWS) Q/A 369. [
]

[

]}. Thus, BHM fails to show that any end users have directly infringed the asserted claims of the '952 or '652 patents with LG devices.

The record evidence also fails to show that the accused LG products necessarily infringe the asserted patents. BHM alleges that the accused functionality is “integral and essential” and that the accused applications necessarily use this functionality, but the evidence does not support BHM’s position. *See, e.g.*, CX-1067C (Zatkovich DWS) Q/A 325, 339, 356, 367, 379; RX-0670C (Jeffay RWS) Q/A 399-400. The evidence does show, however, that the accused LG products (and applications) have substantial noninfringing uses and therefore cannot necessarily infringe. *See Certain Gaming & Entm’t Consoles*, Inv. No. 337-TA-752, Initial Remand Determination at 32-33 (Mar. 22, 2013) (finding no contributory infringement because the accused products had substantial noninfringing uses. Inasmuch as BHM failed to establish direct infringement of any of the asserted claims, BHM also failed to prove indirect infringement by LG.

b. Induced Infringement

Induced infringement requires a showing that the accused inducer act with knowledge that the induced acts constitute patent infringement. *See Global-Tech Appliances*, 131 S. Ct. at 2068. The record evidence fails to establish that LG had knowledge that use of the accused applications on the accused LG products was both patented and infringing. It is determined that,

[

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[]. See *Lucent Techs. Inc. v. Gateway, Inc.*, 509 F. Supp. 2d 912, 930-31 (S.D. Cal. 2007) (finding insufficient evidence to demonstrate that defendant knew or should have known that accused software infringed because the software was provided in binary code (machine code) from a third party); RX-0680C (H. Park DWS) Q/A 27-35; JX-0073C (J. Kim Dep.) at 143; RX-0670C (Jeffay RWS) Q/A 404. Thus, []].

The evidence also fails to establish that LG possessed specific intent to encourage another's infringement. See RX-0670C (Jeffay RWS) Q/A 404, 426. BHM points to [

]. For example, BHM cites CX-0742 claiming [

]. CX-1067C (Zatkovich DWS) Q/A 291. This document, however, is a website printout that lists SmartShare as an entertainment feature, noting it can "Share media wirelessly"; it does not address any accused functionality or provide instructions for any of the asserted claim elements of the '952 or '652 patents. BHM also claims that []]. CX-1067C (Zatkovich DWS) Q/A 339 (citing CX-0331 ([])). The "detailed instructions" BHM refers to, however, explain that [

]. CX-0331 ([] (64).

c. Contributory Infringement

To prevail on a claim of contributory infringement, BHM must show: (1) there is an act of direct infringement; (2) the accused device has no substantial noninfringing uses; (3) the

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accused infringer imported, sold for importation, or sold after importation within the United States, the accused components that contributed to another's direct infringement; and (4) the alleged infringer knew "that the combination for which his component was especially designed was both patented and infringing." *Certain Elec. Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 41; *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1353 (Fed. Cir. 2010).

As discussed above, BHM has not proven direct infringement or that LG has the requisite knowledge for induced infringement. The evidence also fails to establish that LG knew that the accused LG products and/or the accused applications were especially designed for use in an infringement of any of the asserted patents. *See, e.g.*, RX-0670C (Jeffay RWS) Q/A 405-07. Rather, the evidence cited by BHM shows substantial noninfringing uses of the accused LG products. Moreover, [

]. *See* RX-0670C (Jeffay RWS) Q/A 406.

LG's Accused Products as a whole have a many substantial noninfringing uses. LG Mobile Devices can be used as phones, LG's Player Devices can be used to watch television, and both can be used to access non-accused applications. *See, e.g.*, RX-0670C (Jeffay RWS) Q/A 425, 428-29.

In addition, the accused applications associated with LG Mobile Devices and Player Devices have substantial noninfringing uses. RX-0670C (Jeffay RWS) Q/A 408. For example, [

]. *Id.* [

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[

]. *Id.* [

], *See id.* [

], RX-0670C (Jeffay RWS) Q/A 408; CX-0650C ([
]), (SPOT-BHM 000594). [

], RX-0670C (Jeffay RWS) Q/A 408; CX-0650C
([
]), (SPOT-BHM 000605). Inasmuch as these activities are
substantial noninfringing uses, LG is not liable for contributory infringement based on Spotify.

LG Smart Share associated with LG Mobile Devices and Player Devices also has
substantial noninfringing uses, such as use for viewing and/or sharing photos and viewing and/or
sharing videos. RX-0670C (Jeffay RWS) Q/A 409. [

], RX-0670C (Jeffay RWS) Q/A 420. Browsers on
LG devices also have substantial noninfringing uses, including use for browsing the Internet. *Id.*
at Q/A 421. In addition to browsing other, non-accused websites, a user can browse for
information on www.shoutcast.com, including viewing blog posts, contacting Shoutcast, and
viewing social media posts from Shoutcast. *Id.*

The playlist functionality applications also have additional substantial noninfringing uses.
RX-0670C (Jeffay RWS) Q/A 422. For example, [

]. *Id.* [

], *Id.* These

functionalities [] without practicing the limitations of the '952 and '652 patents. *Id.*

Inasmuch as the accused products and functionalities all have substantial noninfringing uses, LG is not liable for contributory infringement vis-à-vis the asserted claims of the '952 and '652 patents.

E. Infringement Analysis of Toshiba Accused Products

1. The '952 Patent

BHM accuses Toshiba televisions and Blu-ray players with the Toshiba Media Share and Pandora applications, and Toshiba tablets with the Toshiba Media Player, Google Play Music and iHeartRadio applications of infringing certain claims of the '952 patent, both directly and indirectly. *See* Joint Outline of Issues at 21-23. For the reasons detailed below, BHM has failed to show that any accused Toshiba “Player Device” or “Mobile Device” infringes any asserted claim, either directly or indirectly.

a. Direct Infringement at the Time of Importation

BHM asserts method claims 9 and 14 of the '952 patent in this investigation. In order for these method claims to be infringed, each and every step recited therein must be performed. *See Certain Electronic Digital Media Devices and Components Thereof (“Electronic Digital Media Devices”)*, Inv. No. 337-TA-796, Comm’n Op. at 40 (Aug. 9, 2013). For the reasons explained below, BHM has not shown that any asserted claim of the '952 patent is directly infringed at the time of importation.

The record evidence demonstrates that the Toshiba products are imported alone, without connection to any other device, and depowered. RX-684C (Okumura RWS) Q/A 15-16; RX-685C (Ramirez RWS) Q/A 51, 102. Additionally, the accused Toshiba products cannot be

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used with any of the Content Service Provider (“CSP”) services, *e.g.*, Pandora, iHeartRadio, Google Play Music or YouTube, at the time of their importation. RX-684C (Okumura RWS) Q/A 30-31, 33; RX-685C (Ramirez RWS) Q/A 50-51, 98-99, 102. The same is the case for DLNA-related operation of the accused Toshiba Media Player and Toshiba Media Share applications. RX-684C (Okumura RWS) Q/A 32, 137; RX-685C (Ramirez RWS) Q/A 52, 54, 77-81, 100. Thus, the devices cannot practice the asserted method claims as they cross the border (even if they were powered on), and their importation alone cannot be a basis for finding a violation of section 337. *Electronic Devices*, Inv. No. 337-TA-724, Comm’n Op. at 17.

Accordingly, it is determined that BHM has not shown that Toshiba has directly infringed any asserted method claim of the ’952 patent (*i.e.*, claims 9 or 14) at the time of importation, and there can be no violation of Section 337 based on such alleged infringement.

Furthermore, the evidence indicates that the Pandora application must download additional code from Pandora’s servers after the Pandora application is launched from an accused Toshiba television or Blu-ray disc player on which it is pre-installed at the time of importation. Zatkovich Tr. 149; RX-0667C (Goldberg RWS) Q/A 45-61. The user interface (“UI”) for the Pandora application is required for performance of the actions alleged to meet the “receiving. . . a playlist assigned to the electronic device . . . ,” “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs,” and “obtaining the ones of the plurality of songs from the at least one remote source” limitations of the asserted ’952 claims. *See* RX-0667C (RWS Goldberg) Q/A 191-193.

The evidence also shows that the Pandora and iHeartRadio applications, as well as the Google Play Music application, must also obtain authentication tokens from Pandora and iHeartRadio servers in order to operate. These applications cannot operate without these tokens.

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which are not on the accused Toshiba products at the time of importation. Zatkovich Tr. 121, 149 (the authorization token required by Pandora is not on the accused devices when imported); Zatkovich Tr. 132-1337 (the iHeartRadio service will not work until the user creates and logs in with an iHeartRadio account on the accused device); CX-0243C.0013 (“[].”); CX-383C (describing “Device Activation” and “Authentication”); RX-0667C (Goldberg RWS) Q/A 50-61.

Inasmuch as the accused Toshiba televisions and Blu-ray players with Pandora and accused Toshiba tablets with iHeartRadio do not have the software necessary for performing all the accused functionality on the devices at the time of importation (*i.e.*, either additional code or authentication tokens), it is determined that there can be no violation of section 337 as to the '952 patent. *See Electronic Devices*, Inv. No. 337-TA-724, Comm'n Op. at 14; *see also Certain Products Containing Interactive Program Guide and Parental Control Technology* (“*Products Containing Interactive Program Guide*”), Inv. No. 337-TA-845, Comm'n Op. at 15 (Dec. 11, 2013) (“Therefore, based on the record evidence, it is unclear what portions of the Netflix SDK are in fact imported into the United States on Netflix Ready Devices. Thus, we are unable to conclude that the imported portions of the SDK perform the actions that purportedly induce infringement of the asserted patents. Accordingly, we conclude that Complainants have failed to show that Netflix made a ‘sale for importation’ of an infringing SDK.”).

Nevertheless, in the event the Commission determines that the evidence summarized above does allow a finding of violation of section 337 based on the accused Toshiba products vis-à-vis the asserted '952 patent, a technical infringement analysis is included below.

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b. Direct Infringement by Toshiba Mobile Devices

As discussed above, BHM alleges that Toshiba tablets, *i.e.*, “Mobile Devices” with Google Play Music infringe claims 9 and 14 of the ’952 patent; that Toshiba tablets with the Toshiba Media Player application infringe claims 9 and 14 of the ’952 patent; and that Toshiba tablets with the iHeartRadio application infringe claim 9 of the ’952 patent.

i. Google Play Music

The technical infringement analysis of Toshiba Mobile Devices associated with Google Play Music is set forth in a separate section below.

ii. Toshiba Media Player

The record evidence fails to show that Toshiba Mobile Devices associated with Toshiba Media Player satisfy all limitations of asserted claims 9 and 14 of the ’952 patent.⁷⁰ The following section describes the specific limitations that are not satisfied by these accused devices.

- **“receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” (claim 9)**

Accused Toshiba tablets with Toshiba Media Player fail to meet the “receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” limitation of claim 9 for a number of reasons. Specifically, there is no “playlist assigned to the electronic device,” and the alleged playlist does not “identify[] a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.”

⁷⁰ Inasmuch as claim 14 depends from claim 9, the accused Toshiba tables with Toshiba Media Player fail to satisfy all limitations of claim 14 for the same reasons set forth for claim 9.

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First, BHM has not adduced evidence showing that there is a “playlist assigned to the electronic device.” The evidence shows that, in the a user properly configures a server to share media on a network, any properly configured DLNA compatible device connected to that network, including Toshiba Media Player, can connect to the server and browse the contents of the server for media. Zatkovich Tr. 187-188; RX-0684C (Okumura RWS) Q/A 124 (“Media Player will display all the media that it can recognize that is stored in the location it accesses...”); RX-0684C (Okumura RWS) Q/A 139. Any media on the server is available to any user and any properly configured device on the network. RX-0684C (Okumura RWS) Q/A 53. BHM points to no evidence that the server specifically assigns a list to one device on the network versus another such that the assignment would be “to the electronic device.”

Second, accused Toshiba tablets with Toshiba Media Player do not “receiv[e] . . . a playlist . . . identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.” The plain language of the claims requires the “playlist” identify “ones of the plurality of songs” not stored on the electronic device. In order for there to be a “playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device,” what is stored on the electronic device (*e.g.*, the accused Toshiba tablets) must be known. If not, it is impossible to determine whether the claimed requirement that “ones of the plurality of songs” are not stored on that device is met. *See* Zatkovich Tr. 214 (“Q. Going back to claims 1 and 9, we were just talking about streaming audio and how it could be a type of file. Do you agree that there has to be some parity between what is identified as not stored and what is provided? A. Yes.”); Schonfeld Tr. 1290-1291; Houh Tr. 1214. The Content Directory Browse request (*i.e.*, “ContentDirectory:1#Browse”), which is relied on by BHM to allege that this “receiving . . .” step can be met, does not return the “playlist” claimed in the ’952 patent.

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The response to this “Browse” request has no relationship to whether or not the songs identified are stored on the device (in addition to being independent of the device making the request).

Specifically, the Browse request returns all songs within a given directory regardless of whether or not those songs are stored locally on the device. Schonfeld Tr. 1286 ([

]). There is no functionality that examines local storage of the accused electronic device; there is no need for it to do so inasmuch as the server streams all data to the electronic device regardless of whether the songs are stored locally. RX-1067C (Goldberg RWS) Q/A 97-98; Schonfeld Tr. 1286; RX-0684C (Okumura RWS) at Q/A 53. Thus, there is no evidence of the accused Toshiba products receiving a “playlist” “wherein ones of the plurality of songs are not stored on [the accused Toshiba tablet].”

- **“receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source” (claim 9)**

The accused Toshiba tablets with Toshiba Media Player are not capable of “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source.” Specifically, the plain language of the claim requires the received “information” to be directed to “the ones of the plurality of songs,” *i.e.*, the songs not stored on the electronic device, and not the entirety of the “plurality of songs” identified in the claimed “playlist.” The evidence shows that this is not how the accused DLNA functionality is implemented in the accused Toshiba tablets with Toshiba Media Player. In particular, the information provided to the Toshiba Media Player application in response to the “Browse” request is directed to all songs identified in the returned catalog. This response does

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not provide information specific to songs not stored locally on the electronic device as called for by the claim language. Schonfeld Tr. 1286.

- **“obtaining the ones of the plurality of songs from the at least one remote source” (claim 9)**

The accused Toshiba tablets with Toshiba Media Player are not capable of “obtaining the ones of the plurality of songs from the at least one remote source” as required by claim 9 of the '952 patent. This limitation specifies that only the songs identified in the playlist that are not already stored on the device, *i.e.*, “the ones of the plurality of songs,” are obtained. *See, e.g.*, JX-0007 ('952 patent) at col. 34, lns. 24-27, 31-32; *see also* Schonfeld Tr. 1291 (“What needs to be obtained are the ones of the plurality of songs, and that refers back to the ones of the plurality of songs that are not stored on the electronic device.”), 1292. When operating as a DLNA Digital Media Player (“DMP”), the Toshiba Media Player application streams all songs identified in response to a “ContentDirectory:1#Browse” request regardless of whether or not these songs are already stored on the accused Toshiba tablet. RX-0684C (Okumura RWS) Q/A 53; RX-0667C (Goldberg RWS) Q/A 97-98. Thus, the accused Toshiba tablets with the Toshiba Media Player application do not perform the step of “obtaining the ones of the plurality of songs from the at least one remote source.”

iii. iHeartRadio

The record evidence fails to show that Toshiba Mobile Devices associated with iHeartRadio satisfy all limitations of asserted claims 9 and 14 of the '952 patent.⁷¹ The following section describes the specific limitations that are not satisfied by these accused devices.

⁷¹ Inasmuch as claim 14 depends from claim 9, the accused Toshiba tables with iHeartRadio fail to satisfy all limitations of claim 14 for the same reasons set forth for claim 9.

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- “receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” (claim 9)

As discussed above, claim 9 of the '952 patent discloses the step “receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.” This assigned “playlist” must consist of “a plurality of songs, wherein ones of the plurality of songs are not stored in the electronic device,” and be “assigned to the electronic device.” The evidence shows that the accused Toshiba tablets with the identified iHeartRadio application installed do not meet these requirements for a number of reasons.

As imported, an accused Toshiba tablet with the identified iHeartRadio application installed is not capable of receiving a “playlist.” Mr. Zatkovich, BHM’s expert, testified that a playlist cannot be provided by the iHeartRadio service until a user has created a user account and a device has been registered with the *iHeartRadio Music Service*. Zatkovich Tr. 130, 133-134. Mr. Zatkovich’s testimony is consistent with the *iHeartRadio Web Services API Reference*, which states that “[

].” CX-243C.0013.

Additionally, the [] function that Mr. Zatkovich identifies as initiating the assignment of a “playlist” requires as an input a “[].” RX-0667C (Goldberg RWS) Q/A 95, 79, 199-200; JX-0014 (Hamre Decl.) at ¶ 7(ii) (“As shown in the iHeartRadio API Reference (CC-BH0000258), the input for [] includes the [] and the []”); CX-0243.0085 (iHeartRadio API Reference); RDX-713C. This “[]” is not provided to a given user unless and until they have logged into the *iHeartRadio* service. CX-0243C.0020

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(identifying “output” of Login procedure as including “[]”). Thus, until the accused Toshiba tablet is registered with the *iHeartRadio Music Service* and the iHeartRadio server issues a “[]” to the accused Toshiba tablet (via a user having logged in), the list of five track titles provided in JSON format (JX-0014C (Hamre Decl.) at ¶ 7(iii)) in response to a [] request cannot be received by an accused Toshiba tablet. That is, until this registration and log-in process is performed, the iHeartRadio application on the accused Toshiba tablets is not capable of “receiving . . . a playlist.” See RX-0667C (Goldberg RWS) Q/A 59-60.

Claim 9 of the '952 patent requires that the claimed playlist be assigned “to the electronic device. The evidence shows, however, that the *iHeartRadio* service associates a playlist with a particular user, rather than a particular “electronic device.” According to Lasse Hamre, the Executive Vice President of Technology at Clear Channel Broadcasting, Inc., a “Profile” is “a unique identifier, [], provided by the iHeartRadio Music Service to a user account after a user device has successfully logged onto the iHeartRadio Service.” JX-0014C (Hamre Decl.) at ¶ 5. It is this “[]” variable, along with an “[]” variable, that is input to the [] function that is called in order to obtain the list of songs that BHM identifies as an alleged “playlist.” JX-0014C (Hamre Decl.) at ¶ 7(ii). This is set forth in the iHeartRadio Music Service API Reference:

[ILLUSTRATION REDACTED]

CX-0243C.0085-86 (highlighting original to demonstrative slide). Thus, the selection of songs returned in response to a [] request is not made based on the device from which the request is made, but rather the “[]” of the specific user that makes the request. Therefore, when using the *iHeartRadio* service, the response to a [] request may be “provided” to the accused Toshiba tablet but it is “assigned” to the user whose “[]” makes the request. This does not satisfy the claim 9 limitation requiring that the playlist be assigned to the electronic device.

The accused Toshiba tablets with iHeartRadio also do not “receiv[e] . . . a playlist . . . identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.” As discussed above, Mr. Zatkovich identifies the list of tracks returned as a result of the [] method call as the alleged “playlist” of claim 9 for purposes of his

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infringement analysis. The evidence shows that this list of tracks has no relationship to the songs stored locally on any accused Toshiba tablet. Specifically, there is no determination made within the context of the iHeartRadio service as to whether tracks returned in response to a [] request are stored locally on the device to which the list of tracks is provided. JX-0014C (Hamre Decl.) at ¶ 7(viii) (“[

].”). The selection of the tracks for the “playlist” is independent of the device from which the [] request is made (by a user), and therefore the “playlist” is not related in any way to the songs stored locally on that device. Thus, there is no evidence that any list of tracks provided in response to a getTracks request meets the requirements of the claimed “playlist” of which “ones of the plurality of songs” are “not stored on the electronic device.”

- **“obtaining the ones of the plurality of songs from the at least one remote source” (claim 9)**

The record evidence shows that the accused Toshiba tablets with iHeartRadio are not capable of “obtaining the ones of the plurality of songs from the at least one remote source” as required by claim 9 of the ’952 patent. When the accused Toshiba tablets are provided with a list of five tracks from the iHeartRadio service in response to a [] request, the iHeartRadio application seeks to obtain the tracks in the list regardless of whether any of these tracks are stored locally on the accused Toshiba tablet. CX-1067C.0239-40 (Zatkovich DWS) Q/A 511-512; JX-0014C (Hamre Decl.) at ¶ 7(viii) (“[

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[.]). This was described by Toshiba's expert, Dr. Goldberg:

When using the iHeartRadio or Toshiba Media Player on the accused Toshiba tablets to play music from a remote source, all the songs on a playlist are streamed—whether [] they are stored on the tablet or not. Thus, it is not just the songs that are not already stored that are streamed, but all songs including those that are already stored on the device. This operation is not what the claim language is directed to, and therefore I do not believe that it is met by [the iHeartRadio] service[.]

RX-0667C (RWS Goldberg) Q/A 98. This is consistent with the testimony of other

Respondents' experts. *See, e.g.*, Jeffay Tr. 985; RX-0669C (Houh RWS) Q/A 270, 277.

Additionally, the Toshiba tablets with iHeartRadio are not capable of obtaining the ones of the plurality of songs under the claim construction adopted above because the iHeartRadio application never downloads and stores the songs. JX-0014C (Hamre Decl.) at ¶ 7(v) (“[.]).

c. Direct Infringement by Toshiba Player Devices

i. Toshiba Media Share

BHM alleges that Toshiba Player Devices with the Toshiba Media Share application, *i.e.*, televisions and Blu-ray players, infringe claims 9 and 14 of the '952 patent. For many of the same reasons described above with respect to “Mobile Devices,” the accused Toshiba Player Devices as imported do not meet several limitations of independent claim 9 of the '952 patent.

- “receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” (claim 9)

The evidence shows that Accused Toshiba televisions and Blu-ray players with Media Share fail to meet the “receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not

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stored on the electronic device” limitation for a number of reasons. Specifically, there is no “playlist assigned to the electronic device” and the alleged playlist does not “identify[] a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.”

For the same reasons disclosed above with respect to the Toshiba Media Player application, the list of songs Mr. Zatkovich accuses of being the claimed playlist is not assigned to the accused electronic device, *i.e.*, a Player Device with Toshiba Media Share. As is the case with Toshiba Media Player, if a user properly configures a server to share media on a network, any properly configured DLNA-compatible device connected to that network can connect to the server, make the same “ContentDirectory:1#Browse” request identified by Mr. Zatkovich, and receive the same catalog of contents regardless of the device from which the request is made. Zatkovich Tr. 187-188; RX-0685C (Ramirez RWS) Q/A 52-54, 100-101. The server may “provide” a list to the requesting Player Device in response to a “browse” request, but this is different from “assigning a playlist to [the Player Device].”

Accused Toshiba televisions and Blu-ray players with Media Share also do not “receiv[e] . . . a playlist . . . identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” for the same reasons discussed above in relation to Toshiba Media Player. Mr. Zatkovich is accusing the Content Directory Browse request that the accused electronic device sends to the server as the “playlist request” that returns a “playlist” as claimed in the ’952 patent (for all Respondents). CX-1067C (Zatkovich DWS) Q/A 448, 407 (referencing Panasonic DLNA client application). For all Respondents’ accused products, the list returned as a result of the Browse request contains no information regarding whether (and which) songs listed therein are stored on the accused Toshiba Player Device. Specifically, the Browse request returns all songs within a given directory, and does so regardless of whether

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those songs are stored locally on the device. Zatkovich Tr. 187; RX-0667C (Goldberg RWS) Q/A 97; *see also* Schonfeld Tr. (Schonfeld) 1286.

- **“receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source” (claim 9)**

The evidence shows that the accused Toshiba televisions and Blu-ray players with Media Share are not capable of “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source” for the same reasons described in relation to Toshiba Media Player. In particular, the Toshiba Media Share application does not receive information in response to a “Browse” request that specifically allows the accused Toshiba Player Devices to stream only those songs that are not already stored on the applicable device as required by asserted claim 9. Schonfeld Tr. 1291.

- **“obtaining the ones of the plurality of songs from the at least one remote source” (claim 9)**

The evidence shows that the accused Toshiba televisions and Blu-ray players with Media Share are not capable of “obtaining the ones of the plurality of songs from the at least one remote source” as required by claim 9 of the ‘952 patent for the same reasons discussed above in relation to Toshiba Media Player (on the accused Toshiba tablets). The language of claim 9 specifies that the electronic device obtains only the songs identified in the playlist that are not already stored on the device, *i.e.*, the claimed “the ones of the plurality of songs” identified in the “playlist.” Schonfeld Tr. 1291, 1292. As set forth above, when operating as a DLNA Digital Media Player (“DMP”), the Toshiba Media Share application does not and cannot stream from a Digital Media Server only those songs identified in response to a “ContentDirectory:1#Browse” request that are not already stored on the accused Toshiba tablet.

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ii. Pandora

BHM also alleges that Toshiba televisions and Blu-ray players with the Pandora application installed infringe claim 9 of the '952 patent. For many of the same reasons described above with respect to iHeartRadio on Mobile Devices, the evidence does not show that Player Devices with Pandora satisfy all limitations of claim 9.

As an initial matter, BHM has not demonstrated actual use of any of the currently imported Toshiba televisions or Blu-ray disc player products. The evidence adduced of alleged use of Pandora on Toshiba products is a Pandora usage report (CX-0350C.002) that references: (1) Toshiba Blu-ray disc players that are no longer imported into the United States (RX-0667C at 21-22 (Goldberg RWS) Q/A 63; RX-0685C (Ramirez RWS) Q/A 18) and (2) a "Toshiba TV" without indication that this reference is to a currently imported Toshiba television (CX-0350C.002).⁷² This report fails to support a finding that a Pandora application has been used on any currently imported accused Toshiba television or Blu-ray disc product.

The evidence further shows that the accused Toshiba televisions and Blu-ray players with Pandora do not satisfy the following limitations of claim 9.

- **"receiving, at an electronic device, a playlist assigned to the electronic device, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device"**

As discussed above, with respect to Google Play Music and iHeartRadio, the "playlist" of claim 9 must (a) be assigned to the device, and (b) identify "a plurality of songs, wherein ones of the plurality of songs are not stored in the electronic device." The accused Toshiba televisions

⁷² This report mentions one additional Toshiba television, the SL417 TV, that has not been imported in years. RX-0685C (Ramirez RWS) Q/A 18.

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and Blu-ray players with the identified Pandora application installed do not meet these requirements for a number of reasons.

As imported, the accused Toshiba televisions and Blu-ray players with the identified Pandora application installed are not capable of receiving a “playlist” at the time of importation. BHM’s expert Mr. Zatkovich argued that the “playlist” in the Pandora service is the map array returned in response to a [] call. CX-1067C (Zatkovich DWS) Q/A 498. Yet Mr. Zatkovich also testified that this map array cannot be provided by the Pandora service until a user has created a user account and a device has been authenticated with the Pandora service, which itself cannot occur until after the user has logged into the Pandora service on the accused device. Zatkovich Tr. 149. Mr. Zatkovich also testified that the user authentication token required for this “playlist” to be received is not on the accused devices at the time of importation. Zatkovich Tr. 148-149.

Mr. Zatkovich’s testimony is consistent with the Pandora API Reference, which sets forth the requirements for operation with the Pandora service and states that “[b]efore a user can use the Pandora service on a device, the user needs associate [sic] their Pandora account with their device.” CX-0383.0004; *see also* RX-0667C (Goldberg RWS) Q/A 50-57. Specifically, the [] call that Mr. Zatkovich identifies as supporting his “playlist” analysis requires a user authentication token, referred to as “[],” as an input parameter. RX-0667C (Goldberg RWS) Q/A 50-57; CX-0383C.0079 (identifying “[]” as a “parameter”). This [] function cannot be properly called without this “[],” which is only provided to the device after a two-stage authentication process. CX-0383.0004 (Pandora API Reference). This authentication process only occurs when the application is launched after the accused device is imported into the United States.

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The Pandora API generally describes the two-stage authentication process as follows:

The authentication sequence consists of two stages. First, the calling device provides its own credential, verifying that it is an device from an authorized partner. This call returns an authentication token for the partner. The second stage is authenticating the end user. The calling device provides its authentication token, along with the credential for the end user.

CX-0383.0004; *see also* RX-0667C (Goldberg RWS) Q/A 51. The “[]” method is called as part of the first stage. CX-0383.0004, .0049-.0050 (Pandora API Reference). This method returns a “[]” CX-0383.0004, .0049-.0050 (Pandora API Reference); *see also* RX-0667C (Goldberg RWS) Q/A 51-52. During the second phase of the authorization process, the “[]” is passed as an input to the “[]” method. RX-0667C (Goldberg RWS) Q/A 53; RDX-0709C. The “[]” method then returns a “[]” parameter. RDX-0710C; *see* CX-383C.0051-.0052 (Pandora API Reference). As discussed above, this “[]” is a required input for the [] method; the [] function cannot be properly run without it. CX-383C.0079, .0081 (describing one error of the [] function as “[]”); RX-0667C (Goldberg RWS) Q/A 55. Thus, without the “[]” on the device, the [] method cannot return the map array that Mr. Zatkovich argues is the claimed “playlist” of claim 9 of the '952 patent. *See* RX-0667C (Goldberg RWS) Q/A 55-56.

Further, the “[]” is not on the accused Toshiba televisions and Blu-ray players as imported. Zatkovich Tr. 149; *see also* RX-0667C (Goldberg RWS) Q/A 57. Until a user has logged into the Pandora application on the accused Toshiba television or Blu-ray player after importation, the Pandora server cannot provide the device with a “[]” (which itself requires the Player Device to be connected to the Internet). Therefore, at the time of

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importation, the accused Toshiba televisions and Blu-ray disc players are incapable of making a proper [] request, and cannot receive an alleged “[],” which comprises a map array of four or more elements relating to tracks or advertisements. *See* JX-0015C (Edwards Decl.) at ¶ 7(i)).

In addition, claim 9 of the '952 patent requires that a playlist be assigned “to the electronic device” rather than to a user. Similar to Google Play Music and iHeartRadio, the evidence shows that the Pandora service associates a playlist with a particular user rather than a particular “electronic device.” Neither the “[]” nor any other input into the [] method is device-specific, and BHM has adduced no evidence to show that it is. According to Carl Edwards, Director of Device Engineering at Pandora, Inc., the map array provided as the result of the [] function (*i.e.*, the alleged “playlist”) is device-independent:

The map array that is returned is based on **the preferences of the user**, the user authentication token and the station token. **No identifier of the device itself that is requesting the map array is considered** by the Pandora server when determining what to include in the map array that is returned.

JX-0015 at ¶ 7(i) (emphasis added). The parameters that are supplied with a [] request include a user authentication token (“userAuthToken”) but no device identifier. Mr. Edwards’ explanation is confirmed by the Pandora API’s description of the two-step authentication process described above.

With respect to the “[]” portion of this two-step process, the Pandora API document describes that the “[]” method can be called with different inputs, one that is based on user log-in information and one that appears tied to a “[].” CX-0383C.0051. Mr. Zatkovich, however, has offered no evidence that the accused Toshiba Devices with Pandora

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use the second, “[]” “[]” method as opposed to the username/password login method (which is listed first in the API documentation); this username/password method does not include a device-specific parameter. RX-0667C (Goldberg RWS) Q/A 53; RDX-0709C. Even if the “[]” method were used, it is the “[]” and not a “[]” that is passed as an input parameter to the identified [] method. CX-383C.0079 (Pandora API Reference). Therefore, the evidence shows that the selection of songs returned in response to a [] request is not made based on the device from which the request is made, but rather based on the user associated with the “[]” that makes the request.

Moreover, as discussed above in relation to the other accused applications, the plain language of the claims requires that “ones of the plurality of songs” identified in the playlist are not stored on the electronic device. There can be no determination of whether the “playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” limitation is met without first making a determination of the songs stored on an accused device. Schonfeld Tr. 1290-1291; Houh Tr. 1214; Zatkovich Tr. 214 (“Q. Going back to claims 1 and 9, we were just talking about streaming audio and how it could be a type of file. Do you agree that there has to be some parity between what is identified as not stored and what is provided? A. Yes.”). The adduced evidence does not show that the accused device makes a determination of the songs stored on it. *See* CX-1067C (Zatkovich DWS) Q/A 494-506. The selection of the tracks in the “map array” returned in response to a [] request for the “playlist” is independent of the device from which the [] request is made,” and the returned map array is not related in any way to the device’s local storage. This is corroborated by Carl Edwards of Pandora, who states in his declaration that “[

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[
].” JX-0015C (Edwards Decl.) at ¶ 7 (vii).

- **“receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source”**

The accused Toshiba televisions and Blu-ray players with Pandora are not capable of “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source.” The evidence shows that the map array returned in response to a [] request contains information about all songs listed therein, regardless of the local storage of the electronic device. JX-0015C (Edwards Decl.) at ¶ 7(vii). Thus, the information received is not for obtaining “the ones of the plurality of songs,” but rather for all songs in the alleged “playlist” regardless of whether or not they are stored in the electronic device (here, the accused Toshiba television or Blu-ray disc player).

- **“obtaining the ones of the plurality of songs from the at least one remote source”**

The evidence shows that the accused Toshiba televisions and Blu-ray players with Pandora are not capable of “obtaining the ones of the plurality of songs from the at least one remote source” as required by claim 9 of the ‘952 patent. As discussed above in relation to the iHeartRadio application, the method disclosed by claim 9 is designed to obtain only the songs identified in the playlist that are not already stored on the device, *i.e.*, “the ones of the plurality of songs” identified in the “playlist.” Schonfeld Tr. 1291, 1292. When the accused Toshiba televisions and Blu-ray players are provided with the map array from the Pandora service in response to a [] function call, the Pandora application will stream all tracks in the map

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array that the user listens to, regardless of whether any of these tracks are stored locally on the accused Toshiba tablet. JX-0015C (Edwards Decl.) at ¶ 7 (vii) (“[

].”); *see also* RX-0667C (Goldberg RWS) Q/A 98.

Additionally, the Toshiba tablets with Pandora are not capable of “obtaining the ones of the plurality of songs” under the claim construction adopted above because the Pandora application never downloads and stores the songs. JX-0015C (Edwards Decl.) at ¶ 7(v) (“[

].”).

For these reasons, the “obtaining . . .” step of claim 9 is not performed on the accused Toshiba television and Blu-ray disc players with the Pandora application installed.

d. Indirect Infringement

Toshiba argues that BHM “has failed to identify the type of indirect infringement allegedly engaged in by Toshiba.” *See* Toshiba Br. at 40-42. In particular, Toshiba argues that “BHM’s prehearing brief fails to analyze the individual elements of either induced infringement or contributory infringement, instead making the generic statement that use of the accused Toshiba devices with the accused applications ‘results in both direct and infringe infringement’ of the ‘952 patent.” *Id.* at 41 (citing Compl. Pre-Hearing Br. at 140-42, 144-45, 148-50, 155-56). It is further argued that “[b]oth BHM’s prehearing brief and the witness statement of its expert,

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Mr. Zatkovich, use verbiage traditionally associated with induced infringement and contributory infringement interchangeably.” *Id.*

BHM’s post-hearing brief does argue that Toshiba is liable for contributory infringement of the ’952 patent. *See* Compl. Br. at 389-421. BHM’s post-hearing brief also alleges that Respondents should be found liable for induced infringement of the ’952 patent should the *Suprema* opinion be “clarified.” *See id.* at 422.

Inasmuch as BHM appears to acknowledge that the *Suprema* decision forestalls a finding of induced infringement of the ’952 patent in this investigation (*see* Compl. Br. at 422), the administrative law judge will only make a determination as to the alleged contributory infringement of the ’952 patent by Toshiba.

i. Direct Infringement by an End User

The record evidence fails to show that a single person or entity has performed each and every step of any asserted claim of the ’952 patent, which is required for a finding of indirect infringement. For instance, BHM and its expert Mr. Zatkovich refer to Toshiba user guides, marketing materials and tutorials as evidence to show direct infringement, but these materials fail to show that all steps of the claimed inventions were practiced in the United States. Mr. Zatkovich references “on-screen menus, prompts, and instructions . . . that highlight and instruct, for example, through prominent placement of playlist-related and custom or personalized radio options, end users to utilize the playlist.” CX-1067C (Zatkovich DWS) Q/A 475. Mr. Zatkovich also references descriptions of Toshiba’s website, its user manuals and specification sheets, as well as “premium placement of DLNA functionality” through its “home screen music players” to support his assertion of direct infringement. *See id.* Mr. Zatkovich cites to Toshiba’s own use of “DLNA functionality on Toshiba Mobile Devices” during testing as further proof. *Id.* The same

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allegations regarding alleged use are made with respect to DLNA on Toshiba Player Devices as well as the remaining accused applications. *See, e.g.*, CX1067C (Zatkovich DWS) Q/A 455-59, 488-93, 501-06, 513-18. The cited evidence does not demonstrate actual use of the infringing Toshiba products, which required for a predicate finding of direct infringement before a finding of indirect infringement can be made.

BHM also identifies “customer call lists” (also referred to as “Customer Service Logs”) regarding “DLNA/Toshiba Media Player” as evidence that end users actually use the Toshiba Player Devices with DLNA.⁷³ CX-1067C (Zatkovich DWS) Q/A 459. Nevertheless, the evidence shows that there are several functionalities associated with “DLNA,” and BHM has not demonstrated that the DLNA-related calls in the Customer Service Logs are, in fact, related to the DLNA functionality accused in this investigation. *See* RX-0667C (Goldberg RWS) Q/A 223-224; CX-0695.0157-.0167 (6200 Series TV User Guide) (describing playback of videos and photos or other media stored locally on a USB. Mr. Zatkovich’s reliance of iHeartRadio and Pandora support center records fail for similar reasons, inasmuch as the records do not show that the call center records relate to actual use of the accused functionalities in an infringing manner. *See, e.g.*, CX-1067C (Zatkovich DWS) Q/A 517, 116.

BHM identifies two additional instances of alleged actual use to support its infringement contention: (1) Toshiba and its agents’ use in testing the accused products, and (2) Mr. Zatkovich’s testing of the products in performing an infringement analysis in the present investigation. The evidence shows that Toshiba does test its products, but the protocols used in this testing fail to establish that each and every step of any asserted claim is performed. For

⁷³ Mr. Zatkovich cites to a 103-page document, CX-0667C, as identifying “multiple calls for DLNA/Toshiba Media Player” on a customer call list. Yet, Mr. Zatkovich fails to identify a specific entry in this document that reflects these calls.

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example, Toshiba's test protocol for the accused Google Play Music application indicates that Toshiba performs a simple "sanity test." CX-0690C.002. There is no disclosure that "playlists" are be used, let alone assigned or received at the accused Toshiba tablet. *Id.* The same is the case for the testing protocols for Toshiba Media Player and iHeartRadio. CX-0690C.0005; CX-0691C. Accordingly, these testing protocols fail to show actual use of the accused products in an infringing manner.

As for Mr. Zatkovich's own testing of the accused products, even if these activities could be relied upon to show direct infringement as a predicate to a finding of indirect infringement, they still cannot be relied upon to establish that every accused Toshiba product has been used. For example, Mr. Zatkovich's testing can support a finding that only the Toshiba products he actually tested, the 39L4300KU television and Excite Pure tablet, were used in an allegedly infringing manner. CX-1067C (Zatkovich DWS) Q/A 440, 525. Mr. Zatkovich's testing of a single Toshiba television, for example, cannot establish that every accused model of television or Blu-ray disc player has actually been used to practice a claimed method within the United States.

ii. Substantial Non-Infringing Uses

As described above, the accused Toshiba devices are not capable of performing each and every step of the asserted claims of the '952 patent at the time of importation. Even if BHM could make that showing, its allegations of contributory infringement cannot succeed because the evidence demonstrates that the accused products have substantial non-infringing uses. *See Electronic Digital Media Devices*, Inv. No. 337-TA-796, Comm'n Op. at 37.

For example, the accused televisions can be used to watch television, the accused Blu-ray disc players can be used to play movies and music stored on optical discs, and the accused tablets can be used for a multiple of general purpose computing functions, including Internet web

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browsing. RX-0684C (Okumura RWS) Q/A 53, 87, 122, 125, 138-39; RX-0685C (Ramirez RWS) Q/A 29, 32, 53, 65, 101; RX-0667C (Goldberg RWS) Q/A 151-155; CX-0694C (Excite 7.7 User Guide); CX-0695 (6200 Series TV User Guide); CX-0700 (BDX5400 User Guide). None of these functions, if used, involves the practice of each and every limitation of any asserted '952 claim.

Even if the accused Toshiba "products" were further specified as a particular accused device/application combination, BHM has failed to adduce evidence showing that these combinations necessarily infringe any asserted claim inasmuch as each of the accused applications has substantial non-infringing uses. For example, the accused Toshiba Media Share application, which is installed on accused Toshiba televisions and Blu-ray disc players, and the accused Toshiba Media Player application, which is installed on the accused Toshiba tablets, can be used to stream media other than songs from a server (the only media claimed in the '952 patent are songs), such as photos and videos, or to stream single songs rather than playlists. RX-0684C (Okumura RWS) Q/A 53, 87, 122, 125, 138-39; RX-0685C (Ramirez RWS) Q/A 32, 53, 65, 101; RX-0667C (Goldberg RWS) Q/A 151-155; CX-0694C (Excite 7.7 User Guide); CX-0695 (6200 Series TV User Guide); CX-0700 (BDX5400 User Guide). Additionally, these applications can be used to play media stored in local memory (or locally attached memory, such as microSD or USB devices, or optical disc media). RX-0684C (Okumura RWS) Q/A 53, 87, 122, 125, 138-39; RX-0685C (Ramirez RWS) Q/A 29, 32, 53, 65, 101; RX-0667C (Goldberg RWS) Q/A 151-155; CX-0694C (Excite 7.7 User Guide); CX-0695 (6200 Series TV User Guide); CX-0700 (BDX5400 User Guide).

As for iHeartRadio, the evidence shows that the iHeartRadio application supports playing both Internet radio broadcasts and alleged "playlists." *See* CX-1067C.0243 (Zatkovich DWS)

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Q/A 520. If the iHeartRadio application is used to receive and play solely Internet radio broadcasts (rather than from “playlists”), it would not infringe any asserted claim of the ’952 patent. RX-0667C (Goldberg RWS) Q/A 154.

These uses and configurations of the accused products and functionalities establish that the accused Toshiba products do not necessarily infringe any asserted claim of the ’952 patent, thereby precluding a finding that Toshiba is liable for contributory infringement of the asserted claims of the ’952 patent.

iii. Knowledge and Intent

BHM’s indirect infringement argument also fails because BHM has not established that Toshiba had the requisite knowledge “that the combination for which this component was especially designed was both patented and infringing.” *See Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S.Ct. 2060, 2067 (2011), quoting *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488, 84, S.Ct. 1526, 12 L.Ed.2d 457 (1964). As evidence to support its contentions, BHM identifies: (1) instructions or tutorials created by non-Toshiba actors and over which Toshiba has no control and (2) documents that reference, by name, accused applications in Toshiba marketing materials and/or user guides. *See* RX-0684C (Okumura RWS) Q/A 23, 80-87, 89-90, 92-93, 127-133; RX-0685C (Ramirez RWS) Q/A 35-44, 95, 116; RX-0667C (Goldberg RWS) Q/A 110-150; CX-1067C (Zatkovich DWS) Q/A 455-62, 473-77, 488-93, 501-6, 513-18. Nothing in these examples establishes the intent necessary to support a finding of inducement, *i.e.*, intent to cause someone to infringe a claim of the patent, rather than merely to perform certain acts that ultimately result in infringement. *DSU Medical Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1304 (Fed. Cir. 2006).

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2. The '652 Patent

BHM accuses Toshiba tablets having the iHeartRadio application alone or in combination with Toshiba Media Player or Google Play Music⁷⁴ of directly infringing certain claims of the '652 patent. For the reasons detailed below, BHM has failed to show that any accused Toshiba tablet infringes any asserted claim.

a. Mobile Devices with iHeartRadio

BHM alleges that Toshiba tablets, *i.e.*, “Mobile Devices” with the iHeartRadio Android application installed infringe claims 1, 11 and 13 of the '652 patent. The evidence adduced at the hearing fails to show that the accused Mobile Devices satisfy certain limitations of independent claim 1 of the '652 patent.

- i. **“a network interface enabling the electronic device to receive an Internet radio broadcast and being further adapted to communicatively couple the electronic device to a central system” (claim 1)**

The evidence shows that the accused Toshiba tablets with the iHeartRadio application installed do not include “a network interface . . . further adapted to communicatively couple the electronic device to a central system” as they are imported into the United States. The accused Toshiba tablets with iHeartRadio installed cannot themselves communicate with, and are therefore not “adapted to communicatively couple” to, any iHeartRadio server at the time of their importation. Instead, the iHeartRadio application must be adapted by a user by registration with an iHeartRadio server before the application is coupled to communicate with the iHeartRadio web services.

⁷⁴ The infringement analysis relating to Google Play Music is set forth in a separate section below.

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For example, the iHeartRadio Web Services API Reference, which “describes the current application programming interface for interacting with iHeartRadio’s backend infrastructure” states that “a device must register with the *iHeartRadio Music Service* before it can use the *iHeartRadio* web services.” See RX-0667C (Goldberg RWS) Q/A 58 citing CX-0243C at CC-BH000000185 (emphasis added); JX-0014C (Hamre Decl.) at ¶ 4. Before an accused Toshiba tablet undergoes the registration process with the *iHeartRadio Music Service*, the network interface of the accused Toshiba tablets is not adapted to “communicatively couple” to the iHeartRadio web services in the manner required by claim 1 of the ’652 patent. RX-0667C (Goldberg RWS) Q/A 170, 187-88. BHM has provided no evidence showing that any accused Toshiba tablet, as imported, is adapted (or otherwise configured) to communicate with the *iHeartRadio* web service. Indeed, Mr. Zatkovich testified that to the contrary. See Zatkovich Tr. at 129-130 (“Q. And you don’t see that in the Hamre declaration, do you? A. Hamre neglects to mention that, but a device must register with iHeart music services before it can use the API services.”).

In order for the accused Toshiba tablets to be “adapted to” communicatively couple to the iHeartRadio service, the user must at least (1) configure the device to set up an active internet connection and (2) register the device with the iHeartRadio service. RX-0684C (Okumura DWS) at Q/A 33; CX-0243C (iHeartRadio API) at CX-0243C.0013. Only after this operation is performed and additions (or changes) are made to the iHeartRadio application via registration, can a connection be made to the iHeartRadio service. CX-0243C.0013-.0014. If this configuration is never performed, then the Toshiba tablet is never “adapted to . . . communicatively couple” to the iHeartRadio web service and there can be no infringement.

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- ii. **“a control system . . . adapted to: i) enable a user of the electronic device to select a desired mode of operation from a plurality of modes of operation comprising an Internet radio mode of operation and a playlist mode of operation”**

Claim 1 of the '652 patent recites a “control system” that is “adapted to” “enable a user of the electronic device to select a desired mode of operation from a plurality of modes of operation comprising an Internet radio mode of operation and a playlist mode of operation.” BHM has introduced no evidence that the accused Toshiba tablets with the iHeartRadio application installed include a “control system” that is “adapted to” perform this function at the time of their importation.

Although the evidence does demonstrate that a quantity iHeartRadio software is installed on the accused Toshiba tablets at the time of their importation, BHM has failed to introduce evidence that the code that installed on these tablets at the time of importation is “adapted to” provide the functionality of the “control system” recited in claim 1. *See* RX-0667C (Goldberg RWS) Q/A 187.

- iii. **“a control system associated with the network interface . . . and adapted to: when the desired mode of operation is the playlist mode of operation: receive the playlist assigned to the electronic device from the central system, the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” (claim 1)**

Claim 1 of the '652 patent recites a “control system” that is “adapted to” “receive the playlist assigned to the electronic device from the central system.” This assigned “playlist” must identify “a plurality of songs, wherein ones of the plurality of songs are not stored in the electronic device.” The accused Toshiba tablets with the identified iHeartRadio application

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installed do not meet these requirements for a number of reasons, including those discussed above in relation to claim 9 of the '952 patent.

As imported, accused Toshiba tablets with the identified iHeartRadio application installed are not adapted to receive a "playlist." Indeed, BHM's expert Mr. Zatkovich testified that a playlist cannot be provided by the iHeartRadio service until a user has created a user account and a device has been registered with the *iHeartRadio Music Service*. Zatkovich Tr. 130, 133-134. This is consistent with the *iHeartRadio Web Services API Reference*, which states that "[a] device must register with the *iHeartRadio Music Service* before it can use the *iHeartRadio* web services." CX-243C.0013. Additionally, as discussed above in relation to the '952 patent, the [] function that Mr. Zatkovich and BHM identify as initiating the assignment of a "playlist" requires, as an input, a "[]." See RX-0667C (Goldberg RWS) Q/A 95, 199-200; JX-0014 (Hamre Decl.) at ¶ 7(ii) ("[

]"). As discussed above in relation to the '952 patent this "[]" is not provided to a given user unless and until they have logged into the *iHeartRadio* service and the accused Toshiba tablet cannot received the response to a [] request until after this [] is received by the device. See CX-0243C.0020; JX-0014C (Hamre Decl.) at ¶ 7(iii).

As discussed in relation to claim 9 of the '952 patent, claim 1 of the '652 patent requires that a playlist be assigned "to the electronic device" rather than to a user. The evidence shows that the *iHeartRadio* service associates a playlist with a particular user, rather than a particular "electronic device." Thus, the "playlist assigned to the electronic device from the central system" limitations of claim 1 the '652 patent is not met for the same reasons this limitation is not met with respect to claim 9 of the '952 patent. RX-0667C (Goldberg RWS) Q/A 200-201.

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Claim 1 of the '652 patent requires that the device be “adapted to . . . receive the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.” As discussed in relation to claim 9 of the '952 patent, the accused Toshiba tablets with iHeartRadio do not “receiv[e] . . . a playlist . . . identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device.” Thus, BHM has not shown that the accused Toshiba tablets include a “control system . . . adapted to . . . receive . . . the playlist identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” for the same reasons that the corresponding limitation of claim 9 of the '952 patent is not met. RX-0667C (Goldberg RWS) Q/A 98, 200-202.

b. Mobile Devices with iHeartRadio in Combination with Toshiba Media Player

BHM alleges that claim 1 of the '652 patent is infringed by accused Toshiba tablets having the combination of iHeartRadio and Toshiba Media Player applications installed. The accused Toshiba tablets with these applications do not meet each and every limitation of claim 1 for the same reasons, discussed above, that the accused tablets with the iHeartRadio application installed do not meet each and every limitation of this claim. Furthermore, the Toshiba Media Player application itself does not meet certain limitations of claim 1.

The Toshiba Media Player application is not adapted to receive and play Internet radio broadcasts as required by claim 1 of the '652 patent. The Toshiba Media Player application cannot be used to receive and play Internet radio. Instead, the Toshiba Media Player is able to play and/or display audio, video or digital image files that are stored locally, on attached memory (e.g., USB drive or microSD card) or on a remote server. RX-0684C (Okumura RWS) Q/A 53, 122; RX-0685C (Ramirez RWS) Q/A 32, 53-54, 101; RX-0667C (Goldberg RWS) Q/A 153.

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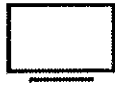





The accused Toshiba tablets with Toshiba Media Player application are not “adapted to” “obtain the ones of the plurality of songs from the at least one remote source” as required by claim 1 of the ’652 patent. As discussed above in relation to the ’952 patent, the Toshiba Media Player application does not and cannot stream from a Digital Media Server only those songs identified in response to a “ContentDirectory:1#Browse” request that are not already stored on the accused Toshiba tablet. Thus, the accused Toshiba tablets with the Toshiba Media Player application do not meet the “a control system . . . adapted to . . . obtain the ones of the plurality of songs from the at least one remote source” limitation of claim 1 for the same reasons that the “obtaining the ones of the plurality of songs from the at least one remote source” limitation of ’952 claim 9 is not met. *See* RX-0667C (Goldberg RWS) Q/A 203.

F. Infringement Analysis of Products Associated with Google Play Music

BHM alleges that certain Samsung, LG, Toshiba, and [] devices associated with the DIAL-enabled YouTube mobile application, Google Play Music, Google Locations+, or Google Latitude practice certain claims of the asserted patents. The record evidence shows that Google’s products operate in the same manner across Respondents’ and [] devices. *See* RX-0666C (Bishop RWS) Q/A 69, 125, 129, 179; Zatkovich Tr. 63, 83.

The following demonstrative, which was finalized before BHM filed its motion to terminate claims 17 and 19-20 of the ’593 patent and claims 1-4 of the ’952 patent, summarizes BHM’s allegations of infringement regarding Google applications associated with Respondents’ accused products.

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Patents	Accused Google Apps	Accused Respondent Devices		
		Samsung	LG	Toshiba
'873 	 + Dial-enabled YouTube Application	 1, 5, 8, 16, 23, 27, 30, 34, 37, 45	 1, 5, 16, 23, 27, 30, 34, 45	 1, 16, 23, 30, 45
'952 / '652 	 + Google Play Music	 '952: 1-4, 9, 14 '652: 1, 11, 13	  '952 (mobile): 1-4, 9, 14 '952 (player): 9, 14 '652 (mobile): 1, 11, 13	 '952: 1-4, 9, 14 '652: 1, 11, 13
'593 	 + Google Locations+	 7, 17-20	 7, 17-20	

RDX-0635 (Summary of infringement allegations from CX-1067C and CX-1068C).

1. Overview of Google Play Music

Google Play Music is a cloud-based music service that is part of Google Play. RX-0567C (Ghosh RWS) Q/A 14. Google Play is a digital content store from which users can download applications, music, magazines, books, and movies. *Id.* at Q/A 15. Google Play Music allows users to upload their own music or purchase music from the Play Store. *Id.* at Q/A 14. Paying subscribers can also browse and play music from Google’s subscription catalog. *Id.* Users can stream music from the cloud or listen to locally-stored music. *Id.*

After Google Play Music is installed on a device, users can open Google Play Music by tapping on a “Play Music” icon. *Id.* at Q/A 20. Users can then select a Google account for use with Google Play Music. *Id.* If they do not have a Google account, then they must create one.

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Id. Upon successfully logging into a valid Google account, the user's device [

]. *Id.* at Q/A 21. [

]. *Id.* [

]. *Id.* at Q/A

21, 32, 34. [

]. RX-

0666C (Bishop RWS) Q/A 142.

For Android-based devices, Google compiles the human-readable source code for Google Play Music into an application package known as a “binary” and provides it to Android partners. RX-0567C (Ghosh RWS) Q/A 17, 18. The binary is in a form that is understandable by a computer. *Id.* at Q/A 18. Partners do not have access to the source code, and it is not possible for partners to alter the binary. *Id.* at Q/A 19. Users can also download the Google Play Music application from the Google Play store for installation on their devices. *Id.* at Q/A 17.

2. “a playlist assigned to the electronic device” (’652 / ’952 Patents)

For the reasons discussed below, it is determined that BHM has not shown that Respondents’ accused products associated with Google Play Music infringe any asserted claim of the ’952 or ’652 patent. In particular, the record evidence shows that the accused products do not assign a playlist to an electronic device, as required by asserted claim 1 of the ’652 patent and asserted claim 9 of the ’952 patent. The evidence does show that the playlists at issue are associated with user accounts.

For instance, BHM’s expert Mr. Zatkovich testified that playlists are associated with user accounts []:

[

]

Zatkovich Tr. 85; *see also* Zatkovich Tr. 67 (“[

].”).

a. Google Play Music Source Code

In addition, the Google Play Music source code demonstrates that [

]. RX-0666C (Bishop RWS) Q/A 139. Google Play Music

source code contains [

]. *Id.* For example, [

]. RX-0666C (Bishop RWS) Q/A 142; RPX-0061C

([]). [

]. RX-0666C

(Bishop RWS) Q/A 142. As demonstrated below in the source code file [

]. *Id.*; RPX-0055C ([]). [

]. *Id.*

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[ILLUSTRATION REDACTED]

RDX-0640C (RPX-0056C [[REDACTED]]); RX-0666C (Bishop RWS) Q/A 143. [[REDACTED]

]. RX-0666C (Bishop RWS) Q/A 139; RPX-0061C ([[REDACTED]]).

The method by which Google Play Music [[REDACTED]

]. RX-0666C (Bishop RWS) Q/A 144; RPX-0068C ([[REDACTED]]).

Moreover, all playlists are available on all devices into which the user has logged in via automatic synchronization, [[REDACTED]

]. RX-0666C (Bishop RWS) Q/A 144. The evidence shows that [[REDACTED]]. *Id.*; RX-0567C (Ghosh RWS) Q/A 27 (“[[REDACTED]

].”); RX-0567C (Ghosh RWS) Q/A 36 (“[[REDACTED]

].”); Ghosh Tr.

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1348 (“[

].”). Further, as Mr. Zatkovich testified, [

]. Zatkovich Tr. 115 (“[

].”).

The operation of Google Play Music when a second account is selected on a device is additional evidence showing that playlists are associated with user accounts, not devices. As Mr. Zatkovich testified, if a second user account logs into the same device as a first user account, the device displays only those playlists associated with the second user account, and not any playlists associated with the first user account. Zatkovich Tr. 93 (“Q: So when you logged in to your account on the same device, did you see the playlist associated with your own personal account? A: That’s correct. Q: Okay. And when you’re logged in with the BHM Mintz account, you see the playlist associated with the BHM Mintz account, correct? A: That’s correct. Q: So when you’re logged in as your own personal -- to your own personal account, you don’t see the BHM Mintz playlist, right? A: That’s correct.”); RX-0666C (Bishop RWS) Q/A 147; RX-0567C (Ghosh RWS) Q/A 48 (“Users can only use one account at a time with Google Play Music. When a different account is selected, the previous account’s locally-stored music is deleted, and the device then synchronizes the metadata for the newly selected account. The user will only see the metadata for that newly selected account.”); *id.* at Q/A 49 (“The user only sees

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the playlists associated with the account that is newly selected and not the playlists associated with the previous account.”).

The evidence used by BHM and its expert to support their contention that the Google Play devices assign playlists to devices is not persuasive. For instance, [

], *See* CX-1067C

(Zatkovich DWS) Q/A 132.

- [

]. RX-0666C (Bishop RWS) Q/A 152;

RPX-0061C ([]).

- [

]. RX-0666C (Bishop RWS) Q/A

152; RPX-0063C ([]).

- [

]. RX-0666C (Bishop RWS) Q/A

152; RPX-0064C ([]). [

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]. RX-0666C

(RWS Bishop) Q/A 152; RPX-0064C ([]).

- [

]. RX-0666C (Bishop RWS) Q/A 152; RPX-0058C

([]). 1

]. RX-0666C (Bishop RWS) Q/A

152; RPX-0058C ([]).

- [

]. RX-0666C (Bishop RWS) Q/A 157;

RPX-0057C ([]).

b. Packet Sniffing Evidence

As for the packet sniffing evidence relied on by Mr. Zatkovich, this evidence also contains references to user accounts [

]. RX-0666C (Bishop RWS) Q/A 153. Mr. Zatkovich testified that [

]. See CX-1067C (Zatkovich DWS) Q/A 132, 133.

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First, as Mr. Zatkovich testified, [

] Zatkovich Tr. 89, 91 (“[

]”).

Furthermore, Mr. Zatkovich failed to account for the clear association of a playlist with a user account in his own packet sniffing evidence. As demonstrated below, [

] See CX-1067C (Zatkovich DWS)

Q/A 133; RX-0666C (Bishop RWS) Q/A 153. As Mr. Zatkovich testified, [

] Zatkovich Tr. 92 (“[

]”).

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[ILLUSTRATION REDACTED]

RDX-0641C (CX-0247C excerpt); RX-0666C (Bishop RWS) Q/A 154.

Turning now to [], the evidence demonstrates that, [

]. RX-0666C (Bishop RWS) Q/A 155; RX-0567C (Ghosh RWS) Q/A 34 (“[

].”). As illustrated below, [

].

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[ILLUSTRATION REDACTED]

RX-0666C (Bishop RWS) Q/A 155, 156; CX-1067C (Zatkovich DWS) Q/A 132; RDX-0642C (CX-0247C excerpt); CX-0247C (Samsung packet sniffing evidence).⁷⁵

The record evidence shows that [

]. RX-0666C (Bishop RWS) Q/A 145; RX-0469 (Android API). As

Google Play Music's Tech Lead Manager explained:

[

].

⁷⁵ [

]. See RX-0666C (Bishop RWS) Q/A 155; CX-1067C (Zatkovich DWS) Q/A 132; CX-0248C (LG packet sniffing evidence); CX-0249C (Toshiba packet sniffing evidence); CX-0250C ([] packet sniffing evidence). However, [

]. RX-0666C (Bishop RWS) Q/A 155.

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RX-0567C (Ghosh RWS) Q/A 21. Google source code further [

]. RX-0666C (Bishop RWS)

Q/A 145; RX-0469 (Android API).

c. Additional Evidence

Mr. Zatkovich also relies on the “unique IP address associated with the [] device” serving as a device identifier, but this theory fails because IP addresses are not unique across the internet and are not unique enough to identify a device. *See* CX-1067C (Zatkovich DWS) Q/A 132; Zatkovich Tr. 94 (“Q: An IP address at any given time is not unique across the Internet, right? A: No. And I’m not purporting that it is. I’m just indicating that’s another piece of information that’s associated with this particular session.”). Moreover, Mr. Zatkovich testified at hearing that he did not rely on IP addresses as proof for assigning playlists. Zatkovich Tr. 218-219.

In his testimony, Mr. Zatkovich also refers to a cropped screenshot of a Google Play Music settings web page containing a “My Devices” section to support his infringement theory. *See* CX-1067C (Zatkovich DWS) Q/A 132; CX-0540 (My Devices Screenshot). However, as confirmed by Debajit Ghosh, Google’s Tech Lead Manager for Google Play Music, [

]. RX-0567C (Ghosh RWS) Q/A 41.

[] *See id.*

[

]. *See id.*

[

]

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[
]. *See id.* at Q/A 41, 48; RX-0666C (RWS Bishop) Q/A 147. [

]. *See* RX-0567C (Ghosh RWS) Q/A 41. [

]. *Id.* [

]. *Id.* at Q/A 38. [

]. *See id.*

Furthermore, as seen in an uncropped version of the screenshot described above, the My Devices section of the Settings page only allows users to deauthorize devices. RX-0567C (Ghosh RWS) Q/A 38; CX-0540 (My Devices Screenshot). Users can neither authorize devices nor manage which devices receive playlists from the Settings page. RX-0567C (Ghosh RWS) Q/A 39, 40. [

]. *Id.* at Q/A 41. [

]. *See* CX-0540 (My Devices Screenshot) ([

Accordingly, BHM has not met its burden of establishing that devices associated with Google Play Music assign playlists to devices as required by the asserted claims of the '952 and '652 patents.

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3. “receiv[e/ing] . . . information . . . enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source” (’652 / ’952 Patents)

The asserted claims require distinct steps of “receiving . . . a playlist” and “receiving . . . information.” See JX-0007 (’952 patent) at claim 9; JX-0009 (’652 patent) at claim 1. The record evidence shows that, with respect to Google Play Music, [

]. As Google’s Tech

Lead Manager explains: “[

].” CX-0567C (Ghosh RWS) Q/A 32. [

].

BHM’s expert Mr. Zatkovich cites to SandroProxy packet traces to show devices

[CX-1067C (Zatkovich DWS) Q/A 138.

He then concludes that, [

]. *Id.* [

]. “Where a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention There can be no literal infringement where a claim requires two separate structures and one such structure is missing from an accused device.” *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LC*, 616 F.3d 1249, 1254-56 (Fed. Cir. 2010) (finding no infringement where the accused product had a hinged arm that contained a spring means, whereas the asserted claim required a hinged arm and a separate spring means) (citing *Engel Indus. v. Lockformer*

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Co., 96 F.3d 1398, 1404-05 (Fed. Cir. 1996) (finding no literal infringement of method claims where patentee accused same feature of infringing distinct elements)).

Mr. Zatkovich also testified [

], but the evidence he relies upon demonstrates the

opposite. *See* CX-1067C (Zatkovich DWS) Q/A 138. In support of his argument, Mr. Zatkovich cites to packet sniffing evidence to show [

]. *Id.*; CX-0247C (Samsung packet sniffing

evidence) at line 4929. Yet, the same packet sniffing evidence shows that [

]. *See* CX-0247C (Samsung packet sniffing evidence) at lines

4899-4900. [

].

Accordingly, BHM has not met its burden to show that devices associated with Google Play Music receive information at an electronic device to obtain the ones of the plurality of songs that are not stored on the device from at least one remote source as required by the asserted claims of the '952 and '652 patents.

4. “Internet radio broadcast” / “control system” / “central system” ('652 Patent)

All asserted claims of the '652 patent require, in part, that there be “an Internet radio broadcast,” “a control system,” and “a central system.” Although BHM has only alleged that Google Play Music practices the “playlist related elements” of claims 1, 11, and 13 of the '652 patent, *see, e.g.*, CX-1067 (Zatkovich DWS) Q/A 256, evidence that the other limitations are satisfied is nevertheless still required to prove infringement. The record evidence demonstrates

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that [

]. *See* Ghosh Tr. 1346 (“[

].”).

BHM has also failed to meet its burden of proof to establish how devices associated with Google Play Music fulfill the “control system” and “central system” limitations of the asserted claims. Mr. Zatkovich, for example, testified that “it is also my opinion that [mobile devices] with Google Play Music practice the playlist related elements,” but provided no explanation of how Google Play Music fulfills the control system or central system limitations, aside from citing to his analysis relating to claim 9 of the ’952 patent, which does not contain those elements. *See* CX-1067C (Zatkovich DWS) Q/A 256.

Accordingly, BHM has not met its burden to establish that devices associated with Google Play Music meet the limitations of an internet radio broadcast, control system, or central system as required by the asserted claims of the ’652 patent.

5. Direct Infringement at the Time of Importation

As explained above, accused devices associated with Google Play Music do not meet every limitation of the asserted claims at the time of importation. RX-0666C (Bishop RWS) Q/A 163. Furthermore, as Mr. Zatkovich testified, there is significant setup required post-importation for Google Play Music to be operable on the accused devices. *See* Zatkovich Tr. 104 (testifying that software was updated after importation), 83 (testifying that a user must have a Google account and be logged in), 102 (testifying that infringement testing included activating the devices and acquiring accounts); *see also* Ghosh Tr. 1335 (explaining playlists are available only

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if the user has selected a Google account), 1348 (explaining there are no user-defined playlists already available on brand new Google Play Music account).

As to the limitations of the asserted claims of the '652 patent, devices associated with Google Play Music are not "adapted to" practice these limitations at the time of importation, at least because [

]. RX-0666C (Bishop RWS) Q/A 155;

CX-0567C (RWS Ghosh) Q/A 21. [

]. See RX-0666C (Bishop RWS) Q/A 163.

Additionally, all of the asserted claims of the '952 patent are method claims, which cannot be directly infringed by Respondents at the time of importation.

Accordingly, BHM has not met its burden of establishing that devices associated with Google Play Music directly infringe the claims of the '952 and '652 patents at the time of importation as required by section 337.

6. Indirect Infringement at the Time of Importation

BHM alleges that Samsung, LG, and Toshiba contributorily infringe device claims 1, 11, and 13 of the '652 patent and induce and contribute to infringement of method claims 9 and 14 of the '952 patent. BHM's allegations fail with respect to at least four critical elements required for a finding of indirect infringement at the time of importation.

First, BHM has failed to show a required underlying act of direct infringement. As discussed above, BHM must either point to specific instances of direct infringement or show that the accused devices necessarily infringe. Yet, BHM has not presented evidence of any

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third-party direct infringer performing every limitation of the asserted claims after importation. *See* RX-0666C (Bishop RWS) Q/A 164. BHM also has not alleged that any end user *necessarily* infringes. Accordingly, BHM has not met its burden of establishing an underlying act of direct infringement as to the indirect infringement allegedly performed by Respondents with regard to devices associated with Google Play Music.

Second, Mr. Zatkovich and BHM have not put forward sufficient evidence of knowledge and intent required for a finding of indirect infringement where there is no record evidence of whether, when, or how Respondents became aware of BHM's infringement allegations prior to the ITC complaint.

Third, as to inducement, BHM has not proven that Respondents took affirmative steps to induce infringement as required by *Global-Tech* where Mr. Zatkovich does not opine on induced infringement of the '952 and '652 patents in his witness statement. *See Global-Tech Appliances*, 131 S. Ct. at 2065, 2068. In a separate discussion, Mr. Zatkovich cites to "instructional videos," websites, manuals, device packaging, [] as encouraging end users to use Google Play Music in Q/A 155 of his witness statement. RX-0666C (Bishop RWS) Q/A 168. Mr. Zatkovich does not explain how these manuals support his position that Respondents had any specific intent or took any affirmative steps to induce infringement. *Id.* These documents show that Respondents and have manuals that explain the general benefits of Google Play Music, but no cited portions of the documents demonstrate or teach using Google Play Music to infringe the '952 or '652 patents. *Id.*

Finally, as to contributory infringement, and as detailed below, BHM has not put forward evidence of accused products that constitute a material part of the inventions that are not staple articles of commerce suitable for substantial noninfringing use.

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BHM's expert, for purposes of substantial noninfringing uses, focuses on the "accused functionality of the electronic devices." *See, e.g.,* CX-1067C (Zatkovich DWS) Q/A 154, 326, 493. To allege infringement, however, Mr. Zatkovich relies more broadly on the devices themselves. Nonetheless, at both the functionality level and at the device level, the evidence shows that all components have substantial noninfringing uses.

For example, devices associated with Google Play Music have substantial noninfringing uses. RX-0666C (Bishop RWS) Q/A 166. These include communications, entertainment, connectivity, directions, maps, business, web searching, and other functions. *Id.* Google Play Music is also a part of Google Play. *See* RX-0567C (Ghosh RWS) Q/A 14. Google Play has substantial noninfringing uses that are not related to music, including purchasing and downloading applications, magazines, books, and movies. *See id.* at Q/A 15.

Google Play Music itself also has substantial noninfringing uses. RX-0666C (Bishop RWS) Q/A 167. For example, playing only music that has been locally stored on the device or listening to streaming music without using a playlist are both substantial noninfringing uses. *Id.*; *see also* Zatkovich Tr. 96 (testifying that a user could use Google Play Music to listen to only local music). Another example of a substantial noninfringing use is Google Play Music operated strictly in airplane mode or otherwise without a network connection, as Google Play Music would not be able to obtain music from a remote source. RX-0666C (Bishop RWS) Q/A 167; *see also* CX-0567C (Ghosh RWS) Q/A 50 ("There are many uses of Google Play Music that do not involve playing remotely-stored music from a playlist, or that even require the use of playlists. For example, one such feature is playing only music that has been sideloaded onto a device. Using a device in airplane mode or in 'on device' mode as I described earlier would also not involve playing remotely-stored music since only locally stored music would be played.").

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Documents produced by Google including, for example, RX-0473 (Google Play Music web page), further demonstrate substantial noninfringing uses. RX-0666C (Bishop RWS) Q/A 167. Source code similarly demonstrates substantial noninfringing uses. *Id.* Publicly available documents, such as RPX-0347 (Google Play Music Offline Video), also demonstrate substantial noninfringing uses. *Id.* In addition, some of Respondents’ documents cited by Mr. Zatkovich in Q/A 155 of his witness statement reflect noninfringing uses. RX-0666C (Bishop RWS) Q/A 167. For example, CX-0487 is a Samsung user manual indicating that “[w]hile offline, you can listen to music you have copied from your PC.” Another example is CX-0480, which is another Samsung user manual noting one can “[p]lay music files from an optional, installed memory card.” Accordingly, BHM does not and cannot meet its burden of establishing that devices associated with Google Play Music lack substantial noninfringing uses, and has not prevailed in demonstrating contributory infringement.

G. Technical Prong of the Domestic Industry Requirement

BHM alleges that certain [] products practice certain claims of the ’952 and ’652 patents in combination with specified applications, as follows:

Product/Functionality	Claims of ’952 patent	Claims of ’652 patent
[] (Mobile/Player)	9	none
DLNA (Mobile/ Player)	9, 14	none
Google Play Music (Mobile)	9, 14	1, 11, 13
Slacker (Mobile) with [], DLNA, Google Play Music playlist functionality	none	1, 11, 13
vTuner (Player) with [], DLNA playlist functionality	none	1, 11

See Resps. Br. at 263-64.

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For the reasons set forth below, BHM has not satisfied the technical prong of the domestic industry requirement with respect to the '952 and '652 patents for any of these products and applications.

1. [] Mobile and Player Devices with [] – Claim 9 of the '952 Patent

BHM alleges that [] mobile and player devices with []⁷⁶ (“SMU”) practice claim 9 of the '952 patent. BHM has not shown, however, that the [] devices practice the “playlist assigned to the electronic device,” “playlist,” “identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device,” and “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least remote source” limitations as required by claim 9 of the '952 patent.

BHM’s expert, Mr. Zatkovich, relies on photographs of a [] device displaying a list of media items to show that [] devices with SMU practice various limitations of the '952 patent. CX-1067C (Zatkovich DWS) Q/A 539-40; CX-0458 (Photograph of [] mobile phone); CX-0455 (Photograph of [] Television). These photographs are not sufficient to show that the [] devices practice the limitations at issue. For example, the photographs do not show that a playlist is assigned to the electronic device; there is no way to tell whether the media items are assigned to the electronic device or assigned to the user of the electronic device. *See* RX-0669C (Houh RWS) Q/A 447. Moreover, the photographs do not show that [] devices

⁷⁶ [] is a subscription-based music service that offers access to songs over a 3G or Wi-Fi connection. After a user has signed in on a compatible device, the user can manage and edit their personal library of music in the cloud from a variety of devices, or synchronize his or her playlists and music using a PC that runs the Windows operating system. Without the creation of a user account on [], a user is unable to utilize the features of [] on any device and is thus unable to stream any audio.

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with SMU practice the “playlist” limitation because these photographs do not show an electronic device “receiving” a playlist, nor do they reveal whether any playlist is arranged in sequence. *Id.* at Q/A 453-54. One of the photographs on which BHM relies, CX-0458, shows a button that says “Shuffle All Songs” on the screen beside the list of media items. The presence of this shuffle button indicates that the songs are not arranged in sequence. *Id.* Likewise, the photographs do not demonstrate that the [] devices practice “receiving . . . information enabling the electronic device to obtain . . . songs from at least one remote source” limitation because nothing in the photographs indicates that any information is received enabling the electronic device to obtain songs from a remote source. RX-0669C (Houh RWS) Q/A 456-58.

BHM’s expert also cites to packet trace evidence to show that [] devices with SMU practice various limitations of the ’952 patent. CX-1067C (Zatkovich DWS) Q/A 539-40. The packet trace evidence does not show, however, that the playlist was assigned to the device. RX-0669C (Houh RWS) Q/A 449; CX-0252C (Packet Trace, [] Phone). Login and authentication of SMU shows only that data is provided to an electronic device based upon the user account that was used to log into the SMU application on that device. RX-0669C (Houh RWS) Q/A 448.

The packet trace evidence cited by BHM’s expert also does not show “receiving . . . information enabling the electronic device to obtain . . . songs from at least one remote source. RX-0669C (Houh RWS) Q/A 457; CX-0252C (Packet Trace, [] Phone). For example, BHM’s expert testified that packet trace evidence shows a [] device receiving a song ID and a URL for each of the songs in a playlist. CX-1067C (Zatkovich DWS) Q/A 540. Nevertheless, neither the song IDs nor the URLs received provides information sufficient for the electronic device to obtain ones of the plurality of songs. RX-0669C (Houh RWS) Q/A 457.

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Specifically, the linked reference in the packet trace shows a request for URL, with a parameter “kind=low-quality,” implying that there may be additional information needed in order to obtain the URL for an audio file. *Id.* Moreover, the packet trace used to support BHM’s arguments, CX-0252C, does not show that any of the “URLs from which the songs can be obtained from at least one remote source” are used to obtain anything in the trace. *Id.* The URLs returned as BHM’s expert described are not used at all in the rest of the packet trace. *Id.* Accordingly, therefore, the supplied trace does not show that the reply URLs are used to obtain songs as required by the claim limitation.

BHM also failed to prove that [] devices with SMU practice the “identifying a plurality of songs, wherein ones of the plurality of songs are not stored on the electronic device” because it failed to provide any evidence relating to that limitation.

2. [] Mobile and Player Devices with DLNA – Claims 9 and 14 of the '952 Patent

BHM has alleged that [] mobile and player devices with “DLNA” practice claims 9 and 14 of the '952 patent.⁷⁷ BHM failed to establish [] devices with DLNA practice the “playlist assigned to the electronic device,” “playlist . . . wherein ones of the plurality of songs are not stored on the electronic device,” “playlist,” “receiving, at the electronic device, information enabling the electronic device to obtain the ones of the plurality of songs from at least remote source,” or “receiving information . . . enabling the electronic device to obtain the ones of the plurality of songs from the at least one remote source” limitations as required by the

⁷⁷ With respect to the technical prong of the domestic industry, BHM defines DLNA to include “[] DLNA” and “[].” BHM concluded that [] mobile and player devices with “DLNA” practice certain claims of the '952 and '652 patents without identifying exactly which applications it believed practice which claims. Inasmuch as it is unclear which functionality BHM is referring to, DLNA as used herein refers generally to BHM’s allegations regarding “[] DLNA” and “[].”

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asserted claims of the '952 patent. Among other reasons, because BHM has failed to present sufficient evidence related to the [] products and DLNA, BHM has failed to meet its burden of proof on the technical prong of the domestic industry.

BHM's expert relied on the same photographs of a [] device with DLNA displaying a list of media items to prove that [] devices practice various limitations of the '952 patent. CX-1067C (Zatkovich DWS) Q/A 561, 565, 573, 577; CX-0459 (Photograph of [] Phone); CX-0453 (Photograph of [] Television). For example, the photographs of [] devices with DLNA do not show that a playlist is assigned to the electronic device because nothing indicates that the media items are assigned to the electronic device instead of the user. RX-0669C (Houh RWS) Q/A 463. Likewise, the photographs do not show a "playlist . . . wherein ones of the plurality of songs are not stored on the electronic device" because nothing in the photographs indicate that the list of media items includes any items that are not stored on the electronic device. *Id.* Moreover, the photographs cannot show [] devices practice "receiving . . . information enabling the electronic device to obtain . . . songs from at least one remote source" limitation because nothing in the photographs indicate that information is received enabling the electronic device to obtain songs from a remote source. *Id.* at Q/A 469.

BHM's expert also relied on packet trace evidence to prove that [] devices practice various limitations of the '952 patent. CX-1067C (Zatkovich DWS) Q/A 561, 565, 573, 577. Packet trace evidence cited by BHM's expert does not show that a playlist is assigned to an electronic device nor that a playlist identifies a plurality of songs that are not stored on the electronic device. RX-0669C (Houh RWS) Q/A 464. The packet trace evidence shows that a browse request has been made, not that any playlist has been assigned to the electronic device. *Id.*; see CX-0217C (Frame 6843) (Wireshark Packet Trace of [] Phone);

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CX-0215C (Frame 650) (Wireshark Packet Trace of [] Television). At most, the Wireshark trace shows that a device may receive a list of songs, but provides no evidence that the list of songs was in fact assigned to that device or that the list of songs identifies songs not stored on the electronic device. RX-0669C (Houh RWS) Q/A 464.

Similarly, packet trace evidence cited by BHM's expert does not show "receiving . . . information enabling the electronic device to obtain . . . songs from at least one remote source." BHM's expert testified that the packet trace evidence shows [] devices with DLNA receiving a response to a playlist request that includes a URL for each song of a playlist. RX-0669C (Houh RWS) Q/A 468. BHM's expert further testified that the same packet traces show representative [] devices issuing a GET request to obtain a song utilizing the corresponding URL. *Id.* However, BHM's expert failed to describe the internal processes that the DLNA application executes to decide whether to use the URL. The fact that the application eventually issued a GET request during BHM's expert's testing does not mean that the DLNA application uses all the URLs to obtain songs or that a single URL is provided for each song. *Id.* From the documents provided by BHM, it is not possible to determine the internal processes the DLNA application executes to decide whether to use the URLs. *Id.*

Further, [] Devices with DLNA only stream content; they do not download and store audio files. RX-0669C (Houh RWS) Q/A 470; RX-0586 ([] advertisement describing DLNA functionality as streaming media). Under the adopted construction of "playlist," the audio files in a playlist are "for playback," which requires that the content be stored on the electronic device. RX-0669C (Houh RWS) Q/A 470. Similarly, under the adopted construction of "obtaining the ones of the plurality of songs from the at least one remote source," the songs must be downloaded and stored. *Id.* Inasmuch as songs are never downloaded or stored, but rather

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only streamed when using the DLNA functionality, [] Devices with DLNA functionality do not meet the requirements of “playlist” or “obtaining the ones of the plurality of songs from the at least one remote source” as required by claims 9 and 14 of the '952 patent. *Id.*

3. [] Mobile Devices with Google Play Music – Claims 9 and 14 of the '952 Patent and Claims 1, 11 and 13 of the '652 Patent

BHM has alleged that [] mobile devices with Google Play Music (“GPM”) practice claims 9 and 14 of the '952 patent and claims 1, 11, and 13 of the '652 patent. [] devices with GPM do not practice the claims of the '952 and '652 patents for the reasons described above with respect to accused Respondents’ products incorporating Google Play Music. In addition, BHM has provided no evidence of an end user ever actually using a [] device in the manner alleged to read on the claims.

4. [] Mobile Devices with Slacker and vTuner – Claims 1, 11 and 13 of the '652 Patent

BHM failed to prove that [] mobile devices with Slacker practice claims 1, 11, and 13 of the '652 patent. As evidence in support of its position, BHM referred to photographs that show a [] mobile device displaying a home screen with application icons and a screen with ESPN Radio activated. CX-1067C (Zatkovich DWS) Q/A 583; CX-0399 (Photograph of [] phone). These photographs are insufficient to show that [] mobile devices with vTuner practice the asserted claims of the '652 patent. RX-0669C (Houh RWS) Q/A 479.

Likewise, BHM failed to prove that [] player devices with vTuner practice claims 1 and 11 of the '652 patent. As evidence in support of its position, BHM referred to a printout of [] website that identifies a number of applications available for all [] devices, including devices not asserted by BHM as practicing the '652 patent. CX-1067C (Zatkovich DWS) Q/A 591; CX-0780 (Website Printout - [] US Store - Entertainment Network). There is no

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indication which applications are available on the [] player devices. RX-0669C (Houh RWS) Q/A 480. This printout is insufficient to show that vTuner is available on the [] player devices, or that the [] player devices with vTuner practice the '652 patent. *Id.*

Moreover, BHM has relied on SMU, DLNA, and GPM to show the playlist limitations of claim 1 for Slacker and vTuner, citing to the same evidence that it relies on for claim 9 of the '952 patent. RX-0669C (Houh RWS) Q/A 479-80. Thus, the reasons as to why the [] mobile devices with SMU, DLNA, and GPM do not meet the limitations of claim 9 of the '952 patent apply equally here. *Id.* In addition, BHM has not addressed the “network interface . . .” or the “a control system associated with the network interface . . .” limitations as required by claim 1 of the '652 patent. Thus, BHM has not established that [] mobile devices with Slacker or vTuner practice these limitations. *Id.* at Q/A 459, 472.

BHM has also relied on [] devices with DLNA in combination with Slacker and vTuner to show that a control system requests and receives “supplemental information related to a song in real-time while the song is playing” limitation as required by claim 11 of the '652 patent. RX-0669C (Houh RWS) Q/A 479-80. The cited photographs and packet trace evidence do not show when the song is playing and how the timing relates to requesting and receiving supplemental information. *Id.* For example, the cited evidence does not explain whether the electronic device sends a “request to the remote server for supplemental information related to a song in real-time while the song is playing.” *Id.* at Q/A 473-78; RPX-0093 (Houh documentation: 55755-50-1712-Cinema-mp3.mp3); RPX-0094 (Houh documentation: 55755-50-1712-Cinema-mp3.raw).

BHM has also relied on GPM functionality to satisfy the limitations of claims 11 and 13 for Slacker. As discussed above, [] devices with GPM do not practice claims 11 and 13 of

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the '652 patent. Thus, devices with Slacker do not practice the asserted claims of the '652 patent.

Moreover, in light of evidence provided by BHM, the non-infringement analysis set forth above with respect to Slacker and vTuner applies equally to BHM's domestic industry allegations with respect to the [] mobile devices with Slacker and vTuner.

H. Validity

1. Prior Art

Respondents allege that the asserted claims of the '952 and '652 patents are invalid as anticipated by, or are rendered obvious by, certain prior art references. It is determined, however, that Respondents have not adduced clear and convincing evidence to show that the asserted '952 and '652 patent claims are invalid over the prior art. Each specific reference is discussed in more detail below.⁷⁸

a. Priority Date

The '952 and '652 patents were filed November 27, 2006, share a common specification, and are continuations of U.S. Patent Application No. 09/805,470, which was filed on March 12, 2001. Each claims priority to U.S. Provisional Application No. 60/246,842, which was filed on November 8, 2000.

⁷⁸ BHM contends that Respondents' obviousness arguments should not be addressed in this initial determination because they were not raised previously in any expert witness statement. *See* Joint Outline of Issues at 25-27 n.23, n.24, n.25, n.26, n.27, n.28. BHM also argues that Respondents' obviousness contentions are unsupported by expert testimony and consist largely of attorney argument. *See, e.g.*, Compl. Br. at 177-79. Setting aside the issue of whether or not Respondents' obviousness contentions are properly addressed in this initial determination, the record evidence does not clearly and convincingly demonstrate that the asserted '952 and '652 patent claims would have been rendered obvious by the asserted prior art references for the same reasons discussed below in the anticipation analysis.

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b. Lipscomb - U.S. Patent No. 7,020,704

i. “receiving a playlist assigned to the electronic device, the playlist identifying a plurality of songs”

U.S. Patent No. 7,020,704 to Lipscomb (“Lipscomb”) does not disclose an electronic device that “receiv[es] . . . a playlist assigned to the electronic device . . . the playlist identifying a plurality of songs” as recited in ’952 patent claim 9 and ’652 patent claim 1. Lipscomb also does not disclose “assigning a playlist to an electronic device, the playlist identifying a plurality of songs . . . providing the playlist to the electronic device” as recited in ’952 patent claim 1.

Lipscomb refers to a system wherein each media asset can be accessed across one or more media player devices. Lipscomb performs rights management on a per-“media asset” basis, wherein each media asset has its own permissions or restrictions set such that it can be accessed “on one or more media players” with “different levels of access.” RX-0065 (Lipscomb) at col. 3, lns. 1-10; col. 9, lns. 40-43; col. 11, lns. 11-15. Lipscomb does not disclose or suggest applying rights management to playlists of media assets or sharing playlists of media assets across multiple devices. *See* CX1400C (Zatkovitch RWS) Q/A 20.

Respondents’ expert Dr. Jeffay testified that the data synchronization process described in Lipscomb at column 10, lines 15-43 discloses these limitations, but the cited section refers to a process for media player devices to synchronize an asset or its metadata with the portal, and does not teach playlist sharing or synchronization. *See* RX-0463C (Jeffay DWS) Q/A 98; RX-0065 (Lipscomb) at col. 10, lns. 25-27 (referencing synchronization “[w]hen an asset or its metadata is added, modified or deleted”); col. 10, lns. 6-9; col. 4, lns. 2-6. The assets synchronized in Lipscomb are actual content, not playlists, and the asset metadata, for example information

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regarding the artist or genre, also do not comprise playlists. RX-0065 (Lipscomb) at col. 4, lns. 36-39.

Dr. Jeffay also refers to column 4, lns. 33-36 and column 9, lns. 46-61 of Lipscomb to show satisfaction of these claim elements, but these sections do not disclose that the user's device receives a playlist assigned to the device. *See* RX-0463C (Jeffay DWS) Q/A 94. Column 9 refers to a user utilizing a local player device to "create a playlist manually from a master database or generate playlists randomly based on database searches." That is, the playlist is created on the local device and was not assigned to the device as required by the language of asserted claim 9.

c. Logan - U.S. Patent No. 6,199,076

i. "receiving a playlist assigned to the electronic device, the playlist identifying a plurality of songs"

U.S. Patent No. 6,199,076 to Logan ("Logan") does not disclose an electronic device that "receiv[es] . . . a playlist assigned to the electronic device . . . the playlist identifying a plurality of songs" as recited in '952 patent claim 9 and '652 patent claim 1. Logan also does not disclose "assigning a playlist to an electronic device, the playlist identifying a plurality of songs . . . providing the playlist to the electronic device" as recited in '952 patent claim 1.

For instance, Respondents' expert Dr. Jeffay testified that column 2, lines 47-50 and column 6, lines 51-55 of Logan discloses the "receiving" claim limitation. Logan, however, refers to providing a player device with a session schedule or compilation that includes a plurality of "ProgramIDs" for program segments. In particular, the program segments in Logan are "compressed audio files and/or text" on subjects including "world news, national news, local news, computer trade news, email and voice mail messages, country music, classical music"

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RX-0024 (Logan) at col. 4, lns. 46-47; col. 30, lns. 31-35. Logan does not disclose that the program segments are songs—when Logan refers to program segments that correspond to “country music” and “classical music,” Logan states that the music selections or files correspond to “topics.” *Id.* at col. 31, lns. 43-45. Moreover, Logan states that a music program segment is “an audio recording of a broadcast radio program” *Id.* at col. 40, lns. 20-22. A recording of a broadcast radio program, which contains talk radio, DJ intros, advertisements, and music, is not a song. *See* CX-1400C (Zatkovitch RWS) Q/A 33.

Logan also does not disclose the claimed “playlist.” Logan teaches that the ProgramIDs provided to the player device are just a list of “numbers” or “key value[s].” RX-0024 (Logan) at col. 12, lns. 5-7; col. 17, ln. 54. They correspond to items in the compilation, but do not identify what those items are or identify them as songs. Therefore, even assuming that the “ProgramIDs” of Logan correspond to program segments whose underlying contents are songs, the ProgramIDs are not a “playlist identifying a plurality of songs” as claimed in the ’952 and ’652 patents.

ii. “receiving information enabling the electronic device to obtain the ones of the plurality of songs from at least one remote source”

Logan also does not disclose an electronic device that receives “information . . . enabling the electronic device to obtain the ones of the plurality of songs . . . from at least one remote source” as recited in claim 9 of the ’952 patent and claim 1 of the ’652 patent.

Respondents’ expert Dr. Jeffay testified that the “download compilation file 145” received from the host server comprises the information that enables the player device to obtain the audio files. *See* RX-0463C (Jeffay DWS) Q/A 188. However, download compilation file 145 only includes the ProgramIDs corresponding to the program segments of a program schedule. RX-0024 (Logan) at col. 6, lns. 51-66. These ProgramIDs are what enable the device

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to play the program segments in a predefined sequence. *See, e.g., id.* at Fig. 5. The download compilation file 145 or ProgramIDs do not enable the player device to obtain the songs. Rather, the Logan player device obtains the program segments by accessing “a predetermined FTP download file directory and assigned a filename known to the player 103.” RX-0024 (Logan) at col. 6, lns. 53-55. In other words, even before the player device receives the download compilation file with the ProgramIDs, it already knows the predetermined location for downloading program segments and has all of the information it needs to obtain them. The Logan player device always accesses the same predetermined location to obtain the download compilation file 145 and the program segments. RX-0024 (Logan) at col. 6, lns. 51-66; col. 8, lns. 29-33; col. 6, lns. 53-55. CX1400C (Zatkovitch RWS) Q/A 36-37.

Accordingly, it has not been shown that Logan satisfies this claim limitation.

d. Ninja Jukebox

It has not been shown that Ninja Jukebox (RX-0109) discloses or suggests an electronic device that “receiv[es] . . . a playlist assigned to the electronic device . . . the playlist identifying a plurality of songs” as claimed in ’952 patent claim 9 and ’652 patent claim 1. It has also not been shown that Ninja Jukebox discloses “assigning a playlist to an electronic device, the playlist identifying a plurality of songs . . . providing the playlist to the electronic device” as claimed in ’952 patent claim 1. According to the Abstract, Ninja Jukebox is a paper that “describes the implementation of the Ninja Jukebox server and client, and their evolution through three stages of functionality” referenced as versions 1.0, 2.0 and 3.0.” CX1400C (Zatkovitch RWS) Q/A 42. In his Rebuttal Witness Statement, Mr. Zatkovitch generally explains the three versions of the Ninja Jukebox. CX1400C (Zatkovitch RWS) Q/A 43-45.

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Respondents allege that “Ninja Jukebox . . . discloses a method for sharing audio content and playlists stored on different devices among those devices.” RX-0463C (Jeffay DWS) Q/A 142. Ninja Jukebox, however, refers to a graphical user interface (“GUI”) on the user’s device that “provides the user with controls for constructing playlists.” RX-0109 (Ninja Jukebox) at 882PRIOR00013642. Ninja Jukebox refers to a playlist that is manually created by the user locally on the user’s device, and not assigned to or received by the device as claimed in the ’952 and ’652 patents.

It is therefore determined that Respondents have not adduced clear and convincing evidence demonstrative that the asserted claims of the ’952 and ’652 patents are anticipated by Ninja Jukebox.

e. RealPlayer

Respondents rely on several “RealPlayer” references (RPX-0001, RPX-0002, RPX-0003, RX-0114, RX-0115, RX-0116) to support their contention that the asserted ’952 and ’652 claims are invalid in view of the prior art. *See, e.g.*, Compl. Br. at 437. The parties dispute whether or not these multiple references qualify as prior art under the relevant statutes, and whether or not certain references were sufficiently available to the public. *See id.* at 437-44. Regardless, even if the multiple RealPlayer references qualify as prior art, and even if they were sufficiently available to the public, they do not show by clear and convincing evidence that the asserted claims of the ’952 and ’652 patents are anticipated or rendered obvious.

i. “playlist identifying a plurality of songs”

It has not been shown by clear and convincing evidence that the RealPlayer references disclose an electronic device that “receiv[es] . . . a playlist . . . the playlist identifying a plurality of songs” as claimed in claim 9 of the ’952 patent and claim 1 of the ’652 patent, or a “playlist

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identifying a plurality of songs . . . providing the playlist to the electronic device” as claimed in claim 1 of the '952 patent. CX1400C (Zatkovitch RWS) Q/A 72.

Respondents' rely on the ability for RealPlayer to read a metafile or RAM file, also known as a multclip, as allegedly showing these claimed features. *See, e.g.*, Resps. Br. at 149. A RAM file, however, identifies only the locations of media clips. Receiving the location of a file does not identify the contents of the file, much less “identif[y] a plurality of songs” as claimed. The underlying content that can be accessed by the user's computer via the locations referenced in the RAM file “can be video, audio, video with audio, RealFlash™ animation, RealText™, RealPix™, any combination of these or something completely different,” depending on how the creator of the RAM file chose to construct the file. RX-0114 (G2 manual) at REAL8820000018; RX-0115 (7 manual) at REAL8820000108; RX-0116 (8 manual) at REAL8820000214. The RAM file does not include the name or title of each media file. The name or title of each file is not received by or identified to the user's device running RealPlayer until, and if, the file is actually played. Therefore, even though the RealPlayer manuals refer to the underlying collection of content as a “Playlist,” the user's computer never receives a list of media items that “identif[ies] a plurality of songs” as claimed in the '952 and '652 patent. This is confirmed by the RealPlayer user manuals, which state that RealPlayer can only display the “title of current clip.” RX-0114 (G2 manual) at REAL8820000017, REAL8820000073, REAL8820000081; RX-0115 (7 manual) at REAL8820000105, REAL8820000189; RX-0116 (8 manual) at REAL8820000209, REAL8820000294.

ii. “receiving a playlist assigned to the electronic device”

It has not been shown by clear and convincing evidence that the RealPlayer references disclose an electronic device that “receiv[es] . . . a playlist assigned to the electronic device” as

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claimed in claim 9 of the '952 patent and claim 1 of the '652 patent, "assigning a playlist to an electronic device . . . providing the playlist to the electronic device" as claimed in claim 1 of the '952 patent.

Even if a multi-clip RAM file in RealPlayer could be constructed in a way that it could be considered a "playlist identifying a plurality of songs" as claimed in the asserted patents, the RAM file is not assigned to the user's device as required by the asserted claims. The RealPlayer software and documents do not disclose accessing, with a user device running RealPlayer, a RAM file corresponding to a plurality of songs in response to a user clicking on a link for the RAM file on the Internet. *See* RX-0463C (Jeffay DWS) Q/A 321. The RealPlayer manuals state that a RAM file can be accessed by a user double-clicking on a link. RX-0114 (G2 manual) at REAL8820000057 ("[D]ouble-clicking on a .ram file should launch RealPlayer Plus and begin to play a clip."); RX-0114 at REAL8820000019; RX-0115 (7 manual) at REAL8820000152; RX-0116 (8 manual) at REAL8820000261. They do not disclose constructing a particular type of RAM file that corresponds to a plurality of songs and then posting that RAM file on a website on the Internet for access by users from personal computers with RealPlayer.

Moreover, the action of one person emailing a RAM file to another person does not constitute "assigning" the RAM file as that term is used in the claims of the asserted patents. *See* RX-0463C (Jeffay DWS) Q/A 321; RX-0461 (Black DWS) Q/A 14-15. There is nothing in the RealPlayer application that shares RAM files, a fact specifically stated in the RealPlayer documents. RX-0114 (G2 manual) at REAL8820000031-32 (stating that RealPlayer only provides a file having an .RNX extension that the user would separately need to email); RX-0115 (7 manual) at REAL8820000114-115; RX-0116 (8 manual) at REAL8820000157-58. Further, if a person receives an .RNX file via email, the user must manually select to locate the file and

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import it to RealPlayer. The user must “Browse as you would with your Windows Explorer to where your mail program downloads files and select the Presets file to be imported (it will have an .RNX extension).” RX-0114 (G2 manual) at REAL8820000031-32; *see also* RX-0115 (7 manual) at REAL8820000114-115; RX-0116 (8 manual) at REAL8820000157-58. Therefore, from the perspective of the RealPlayer, this is no different than the user manually creating the file locally. *See* CX1400C (Zatkovitch RWS) Q/A 79.

In addition, it has not been shown that the alleged “Take5” or “channel” functionality of RealPlayer was associated with the RAM file functionality of RealPlayer and the “assigning” of RAM files to devices. *See* RX-0463C (Jeffay DWS) Q/A 321. The RealPlayer 7 manual describes that the Take5 functionality related to “SMIL” files, which are different than the RAM files relied upon by Dr. Jeffay to show invalidity. RX-0115 (7 manual) at REAL8820000121, REAL8820000169; RX-0116 (8 manual) at REAL8820000218, REAL8820000284.

There evidence also does not show clearly and convincingly that the alleged Take5 functionality caused a “playlist identifying a plurality of songs” to be assigned to a user’s device. For example, the RealPlayer 7 manual simply states that “Take 5 has a dedicated team in RealNetworks working to bring you stories from around the Web making Take5 one of the best places to be on the Web every day.” RX-0115 (7 manual) at REAL8820000121. Stories are not songs.

In view of the adopted constructions of “obtaining” and “obtain” discussed above, RealPlayer version G2 also does not practice the asserted claims because it did not have the ability to locally cache RealPlayer content. *See* RX-0463C (Jeffay DWS) Q/A 319.

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- f. White - U.S. Patent No. 7,187,947**
 - i. “receiving a playlist assigned to the electronic device, the playlist identifying a plurality of songs”**

U.S. Patent No. 7,187,947 to White (“White”) was previously considered by the examiner during prosecution before the PTO, and does not disclose an electronic device that “receiv[es] . . . a playlist assigned to the electronic device . . . the playlist identifying a plurality of songs” as recited in ’952 patent claim 9 and ’652 patent claim 1. *See* JX-0008 (’952 file history); JX-0010 (’652 file history). White also does not disclose “assigning a playlist to an electronic device, the playlist identifying a plurality of songs . . . providing the playlist to the electronic device” as recited in ’952 patent claim 1.

Respondents’ expert Dr. Jeffay testified that Figure 8 of White and corresponding text at column 16, lines 1-11 and column 17, lines 7-13 show satisfaction of the “receiving” limitation. RX-0463C (Jeffay DWS) Q/A 394. However, these portions of the reference only refer to a server that assembles desired audio content, called “audio information,” that was selected by the user. White refers to this assembled collection of audio content as a “playlist,” but once assembled the server transmits only the actual content to a user’s device. RX-0070 (White) at col. 16, lns. 6-9; col. 16, lns. 35-37; col. 16 lns. 52-54. The portions of White relied on by Respondents to show satisfaction of this claim limitation conflate the requirement for the receipt of a playlist, which identifies content, with the receipt of the content itself. White does not disclose that the server sends the playlist itself to the user’s device, including the titles corresponding to the selected audio content that “identif[y] the plurality of songs” as claimed in the ’952 and ’652 patents. CX1400C (Zatkovitch RWS) Q/A88.

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- ii. **“receiving information . . . enabling the electronic device to obtain the ones of the plurality of songs . . . from at least one remote source”**

White does not disclose an electronic device that receives “information . . . enabling the electronic device to obtain the ones of the plurality of songs . . . from at least one remote source” as recited in claims 1 and 9 of the '952 patent and claim 1 of the '652 patent.

Respondents' expert Dr. Jeffay relies Figure 8 of White and the corresponding description at column 16, lines 1-19 to show satisfaction of this limitation. RX-0463C (Jeffay DWS) Q/A 400. However, as described above, White describes only a server that transmits actual audio content selected by the user to the user's device. White does not disclose that the server sends to the user's device information that enables the device to obtain the songs from at least one remote source, *e.g.*, URLs to the audio content, as claimed in the '952 and '652 patents.

- iii. **“identifying ones of the plurality of songs in the playlist that are not stored on the electronic device”**

White also does not satisfy the limitation “identifying ones of the plurality of songs in the playlist that are not stored on the electronic device” as recited in claim 1 of the '952 patent. Respondents' expert Dr. Jeffay relies Figure 8 of White and the corresponding description at column 16, lines 1-19 to show satisfaction of this limitation. RX-0463C (Jeffay DWS) Q/A 400. However, the portion of the specification relates only to operations performed by the server to access and assemble audio content from remote sources, and does not relate to determining what is, or is not, stored on the user's device. CX1400C (Zatkovitch RWS) Q/A 91.

2. Inventorship

LG previously filed a motion for summary determination that the '952 and '652 patents were invalid because Wasi Qureshey, the brother of one of the named inventors, should also have been listed as a named inventor. That motion was denied on grounds that the evidence

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adduced by LG in support of the motion did not “demonstrate clearly and convincingly that Wasi Qureshey contributed significantly to the claimed inventions and should be a named inventor of the ’952 and ’652 patents.” Order No. 36 (Jan. 14, 2014).

Since the denial of the motion for summary determination, Respondents have not provided additional evidence in support of the allegation that the ’952 and ’652 patents are invalid for improper inventorship. Therefore, for the same reasons set forth in Order No. 36, it is determined that Respondents have not met the burden to show, by clear and convincing evidence, that Wasi Qureshey should be named as an inventor to the ’952 and ’652 patents.

For example, the evidence does show that Wasi Qureshey did have discussions with named inventors Daniel Sheppard and Safi Qureshey regarding the general business goal of allowing immigrants to listen to radio stations from their homeland. *See* JX-0092C (D. Sheppard Dep.); JX-0089C (S. Qureshey Dep.). The named inventors and Wasi Qureshey were employees of the same company, Audio Ramp, and the evidence demonstrates that Wasi Qureshey worked on the initial business concept that led to the formation of Audio Ramp. *See* RX-0298 (AudioRamp). Yet, Wasi Qureshey was not deposed and did not testify at the hearing, and it has not been established that he was involved in the conception of the technical work that led to the claimed inventions.

As for BHM’s alleged admission that Wasi Qureshey is an inventor of the ’952 and ’652 patents, the interrogatory response in question identifies Wasi Qureshey as a person with knowledge of the inventors of the ’952 and ’652 patents, but does not specifically state that Wasi Qureshey is himself an inventor. *See* CX-1087C (BHM Interrogatory Responses) at 17-18.

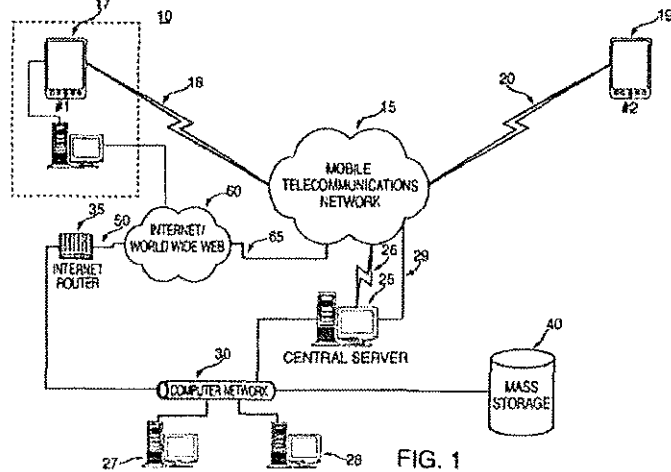
Therefore, it has not been demonstrated, clearly and convincingly, that Wasi Qureshey contributed significantly to the claimed inventions and should be a named inventor of the '952 and '652 patents.

VII. The '593 Patent

A. Overview of the Technology

U.S. Patent No. 6,618,593 (“the '593 patent”) generally discloses a location-dependent user matching system for users of mobile communications devices. *See* RX-0462C (Heppe DWS) Q/A 15.

Two mobile devices communicate with a “central unit” via wireless



communications links. *Id.*; *see also* JX-0011 ('593 patent) at col. 8, lns. 39-45; Fig. 1.

“Information defining a location” of each mobile communications device, along with a user receiving or sending status, is transmitted from one or both of the mobile devices to the central unit, which includes a processor and memory. RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 8, lns. 39-53. The memory of the central unit stores the users’ profiles. RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 7, lns. 32-34; col. 8, lns. 51-53. During operation of the system, the central unit receives the information defining the location of the mobile devices and the user receiving and/or sending status(es). RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 8, lns. 39-53. The processor attempts to match information of the users based on the stored user profiles.

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RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 8, lns. 54-60. If there is a match and the user status(es) is/are appropriately set, the central unit transmits "locating information" to at least one of the mobile devices. RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 8, ln. 60 – col. 9, ln. 14. The transmitted locating information is based upon the information defining the locations of both mobile devices. RX-0462C (Heppe DWS) Q/A 15; *see also* JX-0011 ('593 patent) at col. 8, ln. 64 – col. 9, ln. 14.

B. Claim Construction

I. Level of Ordinary Skill in the Art

Respondents' expert, Dr. Heppe, testified that a person of ordinary skill in the art at the time of the alleged '593 invention would have at least a Bachelor of Science degree in electrical engineering, computer engineering, computer science, or the equivalent, and one to two years of experience in the field of computer communications, telecommunications, and/or communications networking. RX-0462C (Heppe DWS) Q/A 19. According to Dr. Heppe, more education could substitute for experience, and experience, especially when combined with training, could substitute for formal college education.⁷⁹ *Id.*

Mr. Zatkovich, BHM's expert, testified that the parties' proposals as to "the levels of [opined] skill are similar," and testified that "the knowledge of a person or [sic] ordinary skill is the same whether or not the conception date is September 8, 2000 or up to four months earlier." *See* CX-1400C (Zatkovich RWS) Q/A 97. Mr. Zatkovich testified the relevant field of the invention is GPS systems, and not the computer communications, telecommunications, and/or

⁷⁹ Dr. Heppe also testified that BHM's earlier-alleged priority dates of May 3, 2000, or alternatively June 4, 2000, do not alter his opinions regarding the knowledge, ability, understanding, or characteristics of one of skill in the art. RX-0462C (Heppe DWS) Q/A 23.

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communications networking suggested by Dr. Heppe. *See, e.g.*, CX-1067C (Zatkovich DWS) Q/A 31; CX-1400C (Zatkovich RWS) Q/A 96.

It is determined that a person having ordinary skill in the art at the time of the '593 patent would have at least a Bachelor of Science degree in electrical engineering, computer engineering, computer science, or the equivalent, and one to two years of experience in the field of computer communications, telecommunications, and/or communications networking. In addition, more education could substitute for experience, and experience, especially when combined with training, could substitute for formal college education. This definition of the level of ordinary skill, which was proposed by Respondents' expert Dr. Heppe, takes into account the relevant field of the '593 patent. The definition of a person of ordinary skill in the art proposed by Mr. Zatkovich and Black Hills is too narrow, inasmuch as the '593 patent is not primarily directed to using a specific technique, such as GPS, for determining a location. *See* RX-0462C (Heppe DWS) Q/A 20. The '593 patent is not even limited to technologies for determining a location, but instead is directed to systems that use location information in a larger context for matching user profiles. *Id.*

2. Disputed Claim Terms

a. "user sending status" (claim 7)

Claim Term/Phrase	Complainants' Proposed Construction	Respondents and Intervenor's Proposed Construction	Staff's Proposed Construction
"user sending status"	"information indicating whether the user has selected, or the device is configured, to send data to or respond to requests from other mobile communication devices or the server"	"information indicating whether the device is currently able to send data or requests to other mobile communications devices or the central server"	Plain and ordinary meaning

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The disputed claim term “user sending status” appears in asserted independent claim 7 of the ’593 patent.

Respondents and Intervenor propose that the claim term “user sending status” should be construed to mean “information indicating whether the device is currently able to send data or requests to other mobile communications devices or the central server.” *See* Resps. Br. at 199-202. The Staff takes the position that the plain and ordinary meaning of the term should apply. *See* Joint List of Proposed Constructions at 16. Black Hills had originally proposed that the term should be construed to mean “information indicating whether the user has selected, or the device is configured, to send data to or respond to requests from other mobile communication devices or the server,” but “[i]n the interests of streamlining the issues before the ALJ”, now adopts the construction proposed by Respondents and Intervenor. *See* Compl. Br. at 462.

The phrase “user sending status” does not appear in the specification of the ’593 patent except in the summary of the invention, which is primarily a recitation of the claims. Instead, the specification describes “receive/transmit statuses.” The ’593 patent first describes the transmit status, which corresponds to the claimed “sending status,” as “a toggle bit within the wireless data stream transmitted over the wireless communications links that indicates whether . . . requests or data should be sent to other mobile communications devices or to the central server.” *See* JX-0011 (’593 patent) at col. 6, ln. 60 – col. 7, ln. 3.

The specification further discloses a sending status that may be a transmitted data element stored at the central server indicating when information sharing is allowed. JX-0011 (’593 patent) at col. 7, lns. 49-52 (“Further, the above-mentioned receive/transmit status 212 and 222 may actually be a data element within the preference/profile data 213 and 223. For example,

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the user may only wish to receive a matching notification from the central server after 5:00 P.M. on weekdays and sets his communications device availability accordingly.”). Consistent with the specification, first-named inventor Charles Drutman described the claimed statuses as similar to a do-not-disturb bit. *See* JX-0062C (C. Drutman Dep.) at 151:2-22. Also, as Mr. Zatkovich testified, the sending status “has to be sent from the local device to the server” and “checked at the server” to determine whether to send locating information. Zatkovich Tr. 1586-1587.

In other words, the purpose of the “user sending status” is to control the flow of “locating information” to the mobile devices “if there is a match.” The sending status’s control of the flow of “locating information” to mobile devices is described in further detail with respect to the preferred embodiment and Figure 3 as follows:

If a match is made, central server 25 continues with step 305 and examines either one or both of the transmit/receive status data 212 and 222 associated with first and second mobile communications devices 17 and 19. If both devices are sending transmit/receive status data that permits them to notify one another of their physical proximity, then central server 25 determines in step 310 whether the first mobile communications device 17 is within a distance 240 of the second mobile communications device 19, as shown in FIG. 2. After step 310, central server 25 continues with step 315 and causes locating information to be transmitted to either or both of the first and second mobile communications devices 17 and 19 indicating that a “matching” and “available” mobile communications device is in proximate relation to another.

JX-0011 (‘593 patent) at col. 8, ln. 60 – col. 9, ln. 8; Fig. 3; col. 10, lns. 43-46; col. 11, lns. 57-62.

Therefore, the claim term “user sending status” is construed to mean “information indicating whether the device is currently able to send data or requests to other mobile communications devices or the central server.”

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b. “locating information” (claims 7, 18)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction	Staff’s Proposed Construction
“location information”	“information usable to arrive at a location”	“information that enables a user to contact or find another device or location”	“information usable to arrive at a location”

The disputed claim term “locating information” appears in asserted independent claim 7 and asserted dependent claim 18 of the ‘593 patent.

Black Hills and the Staff propose that the term “locating information” should be construed to mean “information usable to arrive at a location.” *See* Compl. Br. at 462-65; Joint List of Proposed Constructions at 16. Respondents take the position that the term should be construed to mean “information that enables a user to contact or find another device or location.” *See* Resps. Br. at 197-99.

As proposed by Respondents, the term “locating information” is construed to mean “information that enables a user to contact or find another device or location.” This construction is consistent with the intrinsic evidence, and comports with the understanding of a person of ordinary skill in the art. *See* RX-0462C (Heppe DWS) Q/A 30.

The ‘593 patent discloses “locating information” as information “indicating that a ‘matching’ and ‘available’ mobile communications device is in proximate relation to another.” JX-0011 (‘593 patent) at col. 9, lns. 3-8. When describing another instance of a preferred embodiment, the specification teaches that “locating information” is a notification of a proximity match coupled with a location or other personal information. *See id.* at col. 10, lns. 37-59 (“Upon finding an available, proximate match, the central server then transmits data to the

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requesting male teenager indicating a matching female teenager has been found. In this regard, the seeking male teenager may receive the location and/or *the personal information* for the matching female teenager”) (emphasis added).

The adopted construction is also consistent with the other embodiments described in the ’593 patent. For instance, the ’593 specification discloses an embodiment where a cell phone number of a proximate traveler is the locating information:

As another example of a matchmaking service, business travelers may wish to locate a particular business service on a nearest available basis when traveling in an unknown area. For example, to determine the nearest available hairdresser, a business traveler may input his or her preferences for a particular type of hair dresser, *e.g.* salon or barber, from which services are desired. All hairdressers that have indicated that they have available appointments within five miles of the business traveler, for example, may be sent the cell phone number of the traveler so that he may be contacted to set up an appointment.

JX-0011 (’593 patent) at col. 10, ln. 60 – col. 11, ln. 3; *see also, e.g., id.* at col. 12, ln. 65 – col. 13, ln. 20 (contacting nearby blood donors that match a patient needing a transfusion); col. 12, lns. 21-25 (teaching use of a warning indicator when the physical distance between the goods and the carrier becomes greater than a maximum set threshold).

In addition, the adopted construction is consistent with testimony provided by the first-named inventor, Charles Drutman, who testified that when there is a match, a telephone number could be sent to the users so they could contact or find each other. JX-0062C (C. Drutman Dep.) at 101-102, 103-104.

By contrast, BHM’s proposed construction is in conflict with dependent claim 14, which recites that “information defining a location” can be “a telephone number.” JX-0011 (’593 patent) at claim 14. Inasmuch as “locating information” is derived from “information defining a location,” it follows that “locating information” can also be a telephone number.

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c. “the memory storing a first[/second] user profile” (claim 7)

Claim Term/Phrase	Complainants' Proposed Construction	Respondents and Intervenor's Proposed Construction
“the memory storing a first[/second] user profile”	“the memory storing profile data about a first[/second] user”	Invalid under 35 U.S.C. § 112 ¶ 2 Or, in the alternative: “the memory storing profile data about a first[/second] user”

The claim term “the memory storing a first[/second] user profile” appears in asserted independent claim 7 of the '593 patent.

BHM argues that this claim term should be construed to mean “the memory storing profile data about a first[/second] user,” a construction with which the Respondents agree. *See* Compl. Br. at 184-85; Resps. Br. at 202-03. The Staff did not argue the construction of this claim term in its posthearing brief. *See* Staff Br. at 165-71.

As proposed by BHM and the Respondents, the claim term “the memory storing a first[/second] user profile” is construed to mean “the memory storing profile data about a first[/second] user.” Upon examination of the '593 specification, it is determined that profile data includes not only “data related to the characteristics of the user or the device,” such as the identity of the associated mobile communications device, but also “preference data for the user or device to be used by the central server in making the match.” JX-0011 ('593 patent) at col. 7, lns. 31-41. “Thus the profiles may contain both specific information related to the users/device and the preference data for the user/device that is being sought.” *Id.* at col. 7, lns. 44-46. Moreover, the user profile can also contain the user sending status and location proximity preferences of the user. *Id.* at col. 7, lns. 41-52.

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- d. “if there is a match and depending upon the user sending status effects the transmission” (claim 7)

Claim Term/Phrase	Complainants’ Proposed Construction	Respondents and Intervenor’s Proposed Construction
“if there is a match and depending upon the user sending status effects the transmission”	“if there is a match and the user sending status indicates the sending of data or the responding to requests, causes to be transmitted”	Invalid under 35 U.S.C. § 112 ¶ 2 Or, in the alternative: “only if there is a match and only if the user sending status indicates that the second device is currently able to send data or requests from other mobile communications devices or the central server then causes to be transmitted”

The claim limitation “if there is a match and depending upon the user sending status effects the transmission” appears in asserted independent claim 7 of the ’593 patent. BHM takes the position that the claim term should be construed to mean “if there is a match and the user sending status indicates the sending of data or the responding to requests, causes to be transmitted.” *See* Compl. Br. at 185-86. Respondents argue that the claim term should be construed to mean “only if there is a match and only if the user sending status indicates that the second device is currently able to send data or requests from other mobile communications devices or the central server then causes to be transmitted.” *See* Resps. Br. at 203-04. The Staff did not argue the construction of this claim term in its posthearing brief. *See* Staff Br. at 165-71.

As proposed by Respondents, the claim term “if there is a match and depending upon the user sending status effects the transmission” is construed to mean “only if there is a match and only if the user sending status indicates that the second device is currently able to send data or requests from other mobile communications devices or the central server then causes to be transmitted.” This construction is consistent with the disclosure at column 8, line 54 to column

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9, line 8 of the '593 patent, as well as with Figure 3 of the '593 patent. *See* JX-0011 ('593 patent). Furthermore, the adopted construction is consistent with the testimony of the first-named inventor Charles Drutman regarding his understanding of the invention. *See* Exhibit JX-0062C (C. Drutman Dep.) at 104.

3. Undisputed Claim Terms

a. “based upon the information defining the locations of the first and second mobile communications devices” (claim 7)

The parties agree that the claim 7 term “based upon the information defining the locations of the first and second mobile communications devices” should be construed to mean “derived from the information defining the locations of both mobile communications devices.” *See* Joint List of Proposed Constructions at 22. Nevertheless, Black Hills and Respondents disagree as to the proper application of this claim term. *See* Compl. Br. at 458-61; Resps. Br. at 195-97.

Respondents take the position that “nothing—not even the agreed upon construction—limits ‘locating information’ to a map with the locations of both devices.” *See* Resps. Br. at 195-97 (citing CX-1400C (Zatkovich RWS) Q/A 139 (opining a prior art reference is not invalidating because “it is not clear that the ‘map’ would show the locations of both users”), 111 (opining “a map showing one location is not ‘derived’ from the locations of ‘both’ mobile communications device.”)) (parentheticals in original citations).

BHM contends:

Respondents, however, now advance an overbroad interpretation of this agreed-upon term in an attempt to cure known defects in their alleged prior art. For example, Respondents baldly assert that a “proximity match” that *is performed* by the central unit constitutes “locating information” transmitted by the central unit. Respondents’ Joint PoHB at 195-197. A “proximity match” is not “locating information” for multiple reasons.

See Compl. Br. at 187-90 (emphasis original).

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An examination of the '593 specification reveals several embodiments where the locating information is derived from the locations of both devices and transmitted in a variety of formats, and is not limited to a map with the locations of both devices. For example, one embodiment teaches that the “locating information” provided as a result of a successful proximity match “may include either graphic or textual information and may be in any known format” including “raw GPS determined data.” JX-0011 ('593 patent) at col. 9, lns. 3-14. There is no indication that this embodiment, in which “locating information” is determined based on the users being within a particular distance of each other, requires a map displaying the location of both devices. *Id.*

Other portions of the '593 specification also support Respondents' interpretation of the “based upon” limitation because this limitation does not necessarily require that the locating information include the location of either user. For example, in one embodiment, the system provides the location of a convenient meeting place relative to the current locations of both devices. JX-0011 ('593 patent) at col. 11, lns. 40-63 (disclosing in the context of delivery trucks that “[i]f the central server determines that one or more of the packages on the first driver’s truck are more efficiently delivered if placed on the second driver’s truck, then the central server transmits a message to the two drivers indicating a convenient meeting place”); *see also id.* at col. 11, lns. 10-39. Indeed, dependent claim 22, which depends from claim 7, covers this embodiment. *See* JX-0011 ('593 patent) at claim 22 (reciting “wherein the locating information is locating information for a location other than the location of either the first mobile communications device or the second mobile communications device”).

Therefore, BHM’s interpretation of the parties’ agreed-upon construction is unduly narrow and excludes embodiments disclosed in the '593 specification that fall within the scope

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of asserted claim 7. Accordingly, the analysis of the accused products and prior art will be made according to Respondents' interpretation of the parties' agreed-upon construction.

C. The Accused Products and Functionalities

1. Google Locations+

The evidence shows that Google+ Locations, or "Locations+," is a location sharing feature of Google+. RX-0468C (Oplinger RWS) Q/A 11. Google+ is a social networking service owned and operated by Google. *Id.* Google+ includes a wide variety of features, including "Circles" to enable users to organize people into groups, "Streams" for viewing updates and content from users in certain circles, "Hangouts" for group video chatting, "Messenger" for sending instant messages, and "Location Sharing" for sharing a user's location. *Id.* at Q/A 11, 13; RX-0470 (Webpage, Google+ Android Apps on Google Play); RX-0472 (Webpage, Google+ Mobile).

The Locations+ feature, launched on March 25, 2013, allows a user to share his location with other Google+ users in his Circles who have been given permission to see that particular user's location information. RX-0468C (Oplinger RWS) Q/A 12, 18, 34. After establishing a Google+ account, a user is able to elect to report his location to Google servers and set preferences for sharing his location with other Google+ users that are in his Circles. *Id.* at Q/A 14, 21, 34. For each person with whom the user wants to share his location, the user can choose to share either his pinpoint location or his city-level location. *Id.* at Q/A 14, 21. For example, a user could share pinpoint location with family members, but only provide city-level location to co-workers. *Id.* at Q/A 22. Those users with whom the location is shared may then go to the Locations+ portion of the Google+ mobile application or visit the sharing user's Google+ page on any internet browser to see the last reported location. *Id.* at Q/A 23. Locations+ uses maps

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provided by Google Maps to show the users' locations, but Locations+ does not provide directions from one user to another. *Id.* at Q/A 36, 37.

Locations+ is [

]. RX-0468C (Oplinger RWS) Q/A 19. The human-readable source code for the Google+ application is compiled into a binary that cannot be altered and that is only machine-readable for distribution to Android partners. *Id.* at Q/A 15-17. Users can also download Google+ from the Google Play store for installation on their Android devices. *Id.* at Q/A 15.

2. Google Latitude

The evidence shows that Google Latitude was a feature of Google Maps for Mobile that allowed users to report their locations and share them with other users. RX-0468C (Oplinger RWS) Q/A 44. Latitude was deprecated on August 9, 2013; Google has stopped accepting signals from Latitude end points, and the Latitude feature no longer works. *Id.* at Q/A 46. Deprecating Latitude made way for the new Locations+ feature integrated with the Google+ ecosystem. *Id.* at Q/A 47. While Latitude's features and functionalities were similar to those offered by Locations+, each is a distinct product [

]. *Id.* at Q/A 45.

When Latitude was still active, users who had Google accounts could allow other users to see their locations and could also see the locations of other users who were sharing with them. RX-0468C (Oplinger RWS) Q/A 44, 52. If users then accessed the "Latitude" layer of the Google Maps for Mobile application, they would be able to see sharing users' locations on a map provided by Google Maps. *Id.* at Q/A 51, 53, 61. The accuracy of the returned locations depended upon the sharing users' settings because Latitude enabled users to control the accuracy

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and details that permitted users could see. *Id.* at Q/A 44. Latitude could be turned off completely, or it could be customized to allow only a city-level view of a user's location. *Id.* The location shared was either a location reported to the server automatically or one that the user entered manually. *Id.* at Q/A 56.

[
]. RX-0468C (Oplinger RWS) Q/A 49. The human-readable source code for Latitude was compiled into an unalterable binary that was only machine-readable before distribution to Android partners. *Id.* at Q/A 50. Users were also able to download Google Maps for Mobile with the Latitude feature from the Google Play Store. *Id.*

3. The Samsung and LG Devices

Black Hills accuses certain Samsung and LG devices of infringing the '593 patent. The relevant accused devices are mobile [
]. CX-1067C (Zatkovich DWS) Q/A 595-596. This application contains a "Locations" tab to provide a mobile user with the location of another mobile user. The "Locations" functionality was termed "Locations+" at the hearing. RX-0468C (Oplinger DWS) Q/A 11-12.

The Accused Samsung devices are those with Locations+ preloaded, and with GPS and mobile data capability. They include the following models: the Samsung [
]

[

] Compl. Br. at

472-73; CX-1067C (Zatkovich DWS) Q/A 596-597.

The accused LG mobile devices are those LG smartphones which include [

]

[

]. Compl. Br. at 473-74; CX-1067C

(Zatkovich DWS) Q/A 596, 598.

4. The [] Devices

BHM contends that [] smartphones that are preloaded with Google+, and that have GPS and mobile data capability practice the '593 patent and thereby satisfy the technical prong of the domestic industry requirement. *See* Compl. Br. at 474. They are (for Locations+) the [

] CX-1067C (Zatkovich DWS) at Q596, Q599. BHM further contends that the [] phones preloaded with Google Maps/Latitude and having GPS and mobile data capability also practice the '593 patent and thereby satisfy the technical prong of the domestic industry requirement. *See* Compl. Br. at 474. These phones include the [

] CX-1067C (Zatkovich DWS) at Q/A 689-694.

5. Designation of Representative Products

Black Hills contends that, inasmuch as Locations+ functionality [

].

Compl. Br. at 474-78. Black Hills relies on the testimony of Google's corporate designee on Locations+, Andrew Oplinger, as support for this proposition. Specifically, Black Hills cites to

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testimony from Mr. Oplinger that Locations+ is [

]:

[ILLUSTRATION REDACTED]

JX-0083 (Oplinger Dep.) at 28.

Black Hills also relies on the activities of its expert, Mr. Zatkovich, to demonstrate that all accused products with Locations+ operate the same. *See* Compl. Br. at 475-76. Specifically, Mr. Zatkovich operated different phones from the Respondents, reviewed relevant documents, reviewed the single version of source code produced by Google (applicable to all phones), and

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examined the non-infringement arguments of Respondents, [

]. *See id.* (citing CX-1067C (Zatkovich DWS) Q/A 618). Mr. Zatkovich testified:

[ILLUSTRATION REDACTED]

CX-1067C (Zatkovich DWS) Q/A 618.

According to Mr. Zatkovich, that [

].

CX-1067C (Zatkovich DWS) Q/A 619. Specifically, [

]. *See id.* Mr.

Zatkovich also testified that [

]. *See* CX-1067C (Zatkovich DWS) Q/A 620-622.

Google's expert Dr. Bishop analyzed the Google source code, and while he believes there was no infringement, he did not contest the proposition that [

]. *See* RX-0666C (Bishop RWS) at Q/A 178-179. Samsung's expert

Dr. Heppes also provided no testimony disagreeing with the conclusion that []

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[]. *See* RX-0668C (Heppe RWS) (generally). LG’s expert Dr. Min did question whether or not the evidence was sufficient to support a determination that [], but the record evidence does support such a determination. *See* RX-0672C (Min RWS) Q/A 35-38.

Inasmuch as Google has provided testimony through its corporate designee Mr. Oplinger that [

]. *See* RX-0468C.02 (Oplinger WS) Q/A 15-16; RX-0668C (Heppe RWS) Q/A 27; RX-0672C (Min RWS) Q/A 33-34.

D. Infringement Analysis

1. Direct Infringement

BHM alleges that certain Samsung, LG, and [] mobile devices associated with Google’s Locations+ and Latitude practice independent claim 7 and dependent claim 18 of the ’593 patent. Nevertheless, BHM has not adduced evidence showing that the devices associated with Locations+ and Latitude satisfy all limitations of the asserted claims. The specific limitations not practiced by the accused products are discussed in further detail below.

a. “match information of the users”

The evidence shows that the accused products do not practice asserted independent claim 7 and dependent 18, inasmuch as they do not satisfy the “match information of the users” limitation recited in claim 7.

i. Devices with Locations+

The record evidence demonstrates that accused devices associated with Locations+ do not match information of the users as required by the claims for two reasons: []

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[

]. RX-0468C (Oplinger RWS) Q/A 27; RX-0666C (Bishop RWS) Q/A 190; Zatkovich Tr. 226.

First, the asserted claims require that the processor “receive[] the first and second user profiles,” but the evidence shows that Locations+ functionality [

]. See Zatkovich Tr. 74 (“[]”). [

]. RX-0666C (Bishop RWS) Q/A 189-190; RX-0468C (Oplinger RWS) Q/A 27, 31-33; RPX-0013C ([]). [

]. RX-0666C (Bishop RWS) Q/A 194. [

]. RX-0468C (Oplinger RWS) Q/A 31, 67. Furthermore, Mr. Zatkovich’s testimony that [

] is not supported by the evidence. See CX-1067C (Zatkovich DWS) Q/A 655. Although Mr. Zatkovich testified [

], Mr. Zatkovich also testified [] CX-1067C (Zatkovich DWS)

Q/A 52; Zatkovich Tr. 75. Moreover, the evidence shows that [

]. RX-0666C (Bishop RWS) Q/A 199.

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Second, the record evidence does not establish that devices associated with Locations+ “match information of the users” as required by the claims. [

] RX-0468C

(Oplinger RWS) Q/A 33. [

].⁸⁰

BHM argues two separate theories of infringement with respect to this claim limitation. In support of the first theory, Mr. Zatkovich testified that [

] CX-1067C (Zatkovich DWS) Q/A 658; Zatkovich Tr. 75. The evidence, however, does not support this theory of infringement. First, [

] See, e.g., RX-0666C (Bishop RWS) Q/A 190

([

]). Although Mr. Zatkovich testifies about [

], the evidence shows that

[See.

⁸⁰ [RX-0666C (Bishop RWS) Q/A 191; RX-0468C (Oplinger RWS) Q/A 32; RPX-0018C ([]); RPX-0019C ([]). [] RX-0666C (Bishop RWS) Q/A 192; RX-0468C (Oplinger RWS) Q/A 31-32. [

] RX-0666C (Bishop RWS) Q/A 193; RPX-0018C ([]); RPX-0020C ([]); see also RX-0468C (Oplinger RWS) Q/A 32. [

] RX-0468C (Oplinger RWS) Q/A 36.

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e.g., Zatkovich Tr. 77 (“[

].”); RX-0468C (Oplinger RWS) Q/A 13 ([

]).

[

]. *See* Zatkovich Tr. 229-230; RX-0468C (Oplinger RWS)

Q/A 13. Second, [

]. RX-0468C (Oplinger RWS) Q/A 34; RX-0666C (Bishop RWS) Q/A 196. As

described above, [

In support of BHM’s second theory of infringement, Mr. Zatkovich testified that “[

].” CX-1067C

(Zatkovich DWS) Q/A 658. This theory of infringement is also not supported by the evidence.

For instance, Mr. Zatkovich testified that [

]. Zatkovich Tr. 74-75. This testimony in fact restates the

reason why [

]. RX-0666C (Bishop RWS) Q/A 194, 196;

RX-0468C (Oplinger RWS) Q/A 33.

BHM also argues that this claim limitation is satisfied under the doctrine of equivalents, and its expert Mr. Zatkovich testified []).

See CX-1067C (Zatkovich DWS) Q/A 656. The evidence shows, however, that there is a

fundamental difference between [

]. RX-0666C (Bishop RWS) Q/A 198.

[

]. *Id.* [

]. *Id.* [

]. *Id.* at Q/A 199.

ii. Devices with Latitude

Like Locations+, the evidence shows that the now-deprecated Latitude did not “match . . . information of the users” as required by the claim limitations because Latitude operation did not

[

].

First, Latitude did [

]. RX-0666C (Bishop RWS) Q/A 202-203;

RX-0468C (Oplinger RWS) Q/A 58-60; RPX-0025C ([

]).

[

].

Second, devices associated with Latitude did not “match information of the users.” [

]

[

] RX-0468C (Oplinger RWS) Q/A 59.⁸¹

b. “locating information”

Asserted claims 7 and 18 of the ’593 patent recite the claim limitation “locating information . . . based upon the information defining the locations of the first and the second mobile communications devices.” The evidence shows that the accused products do not practice claim 7 and its dependent claim 18 because they do not satisfy the “locating information” limitation.

BHM’s expert Mr. Zatkovich testified that for Locations+ and Latitude, “[]” Zatkovich Tr. 73-74; *see also* CX-1067C (Zatkovich DWS) Q/A 724. As discussed above, the claim term “locating information” is construed to mean “information that enables a user to contact or find another device or location.” Indeed, Mr. Zatkovich testified that “locating information” requires that “one user be able to find the second user.” Zatkovich Tr. 73.

The accused functionality on the accused products [

] RX-0666C (Bishop

⁸¹ [

] RX-0666C (Bishop RWS) Q/A 204; RX-0468C (Oplinger RWS) Q/A 59; RPX-0023C ([]); RPX-0026C ([]); RPX-0028C ([]); RPX-0029C ([]). [] RX-0666C (Bishop RWS) Q/A 204. [

] *Id.*; RX-0468C (Oplinger RWS) Q/A 57-59, 61; RPX-0024C ([]).

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RWS) Q/A 216. The claims require that the “locating information,” which defines the locations of both users, be transmitted from the “central unit.” JX-0011 (’593 patent) at cl. 7 (“a central unit having a processor . . . wherein the processor . . . effects the transmission to the first mobile communications device of locating information defining the locations of the first and second mobile communications devices”). However, Locations+ Tech Lead Andrew Oplinger testified that []. Oplinger Tr. 1389. The evidence does not show that [

]. *Id.*; CX-1067C

(Zatkovich DWS) Q/A 658. Further, Mr. Zatkovich testified [

]. CX-1400C (Zatkovich RWS) Q/A 111.

Accordingly, devices associated with Locations+ or Latitude do not meet the “locating information” limitation, and BHM has not established that devices associated with Locations+ or Latitude practice the asserted claims of the ’593 patent.

c. “user sending status”

Claim 7 of the ’593 patent requires the second device to transmit “a user sending status,” and that “locating information” be transmitted “depending on the user sending status,” limitations that also apply to asserted dependent claim 18. As discussed further below, the evidence shows that devices associated with Locations+ and Latitude do not and did not implement a user sending status that is checked before effecting transmission of locating information.

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i. Locations+

The record evidence shows that Locations+ does not implement a “user sending status” for several reasons. First, as Mr. Zatkovich testified, [

].

Zatkovich Tr. 1591. [

]. RX-0468C (Oplinger RWS) Q/A 12 (“[]”).

Second, [

]. *See*

CX-1067C (Zatkovich DWS) Q/A 643-645. Indeed, Mr. Zatkovich testified that [

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].

Zatkovich Tr. 84. Accordingly, the location sharing settings do not comprise the claimed “user sending status” because [

].

Third, [

]. RX-0468C (Oplinger RWS) Q/A 22, 35.

[

]. *Id.* at Q/A 35. [

]. *Id.* at Q/A 25. [

]. *See, e.g.,*

RX-0472 (Webpage, Google+ Mobile) (“[

].”).

Finally, [

]. As Mr. Zatkovich testified, [

]. CX-1067C (Zatkovich DWS) Q/A 52. He also testified that “[

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].” *Id.* at Q/A 658. However, [

]. *Id.*

The evidence also shows that Locations+ does not practice this limitation under the doctrine of equivalents. Mr. Zatkovich testified [

], CX-1067C (Zatkovich DWS) Q/A 643, 649. This testimony [

]. *See* RX-0468C

(Oplinger RWS) Q/A 22, 25. [

]. *See id.* at Q/A 22, 25, 35; *see also*

CX-1400C (Zatkovich RWS) Q/A 105 (“[

].”).

[

]. RX-0666C (Bishop

RWS) Q/A 321. The way is different; [

]. *Id.* The result is also different; [

]. *Id.*

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Accordingly, inasmuch as Locations+ does not satisfy the claim element “user sending status,” either literally or under the doctrine of equivalents, BHM has not established that devices associated with Locations+ practice the asserted claims of the ’593 patent.

ii. Latitude

As with Locations+, Latitude did not implement a user sending status. The evidence shows that [

], RX-0468C (Oplinger RWS) Q/A 54. [

]. *Id.* [

]. *See, e.g.*, RX-0666C (Bishop RWS) at Q/A 249.

In addition, under Mr. Zatkovich’s own interpretation of the claim term “user sending status,” Latitude could not satisfy the limitation because: [

].
RX-0468C (Oplinger RWS) Q/A 44; CX-1067C (Zatkovich DWS) Q/A 712.

Further, as with Locations+, Mr. Zatkovich’s doctrine of equivalents opinion relates to [

]. *Id.* However, as discussed above, [

]. *See* RX-0468C (Oplinger RWS) Q/A 54; RX-0666C (Bishop RWS) Q/A 321; *see also* CX-1400C (Zatkovich RWS) Q/A 105.

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Accordingly, inasmuch as devices associated with Latitude did not satisfy this limitation, either literally or under the doctrine of equivalents, BHM has not meet its burden of establishing that devices associated with Latitude practiced the asserted claims.

d. “[first/second] mobile communications device for transmitting information defining a location of the [first second] mobile communications device”

Claim 7 of the '593 patent requires both “a first mobile communications device for transmitting information defining a location of the first mobile communications device” and “a second mobile communications device for transmitting information defining a location of the second mobile communications device.” The evidence shows that neither Locations+ nor Latitude satisfies this claim limitation.

Mr. Zatkovich testified that “the ‘second’ mobile communications device is another device running the client software of Google+. The client software runs the same . . . on all devices, and the Google+ application on a second device works the same as that on the first device.” CX-1067C (Zatkovich DWS) Q/A 643. Regarding Latitude, Mr. Zatkovich testified that as “stated previously, the client software runs the same . . . on all devices, and the Latitude application on a second device works the same as that on the first device.” CX-1067C (Zatkovich DWS) Q/A 712. However, testimony that a hypothetical second device works similarly to the first does not satisfy the limitations of this system claim, which requires both a first and second mobile device operating as part of a single system. The record evidence does not show that Locations+ and Latitude require or permit the use of two devices. Accordingly, BHM has failed to demonstrate two mobile devices as required by the claimed system.

In addition, it has not been shown that the Locations+ feature of the Google+ application transmits information defining its location on a first device or a second device. Mr. Zatkovich

testified that [

]. *See* CX-1067C (Zatkovich DWS) Q/A 623, 628. Indeed, Andrew Oplinger, the Locations+ Tech Lead, stated that [

]. JX-0083C

(Oplinger Dep.) at 25; *see also* RX-0468 (Oplinger RWS) Q/A 25; RX-0802C (Bishop Dep.) at 79-80) (stating that [

]).

Accordingly, BHM failed to adduce evidence showing the required first and second devices transmitting information defining their respective locations.

2. Direct Infringement at the Time of Importation

The record evidence shows that the accused devices associated with Locations+ and Latitude do not (in the case of Locations+) and did not (in the case of Latitude) meet every limitation of the asserted '593 claims [*See* RX-0666C (Bishop RWS) Q/A 238. In particular, the asserted claims require “two mobile communications devices” and “a central unit.” Zatkovich Tr. 63-64. BHM’s expert Mr. Zatkovich has testified that the claimed “central limitation” is satisfied by “the Google server which runs the server side code produced by Google.” Zatkovich Tr. 65. The evidence does not show that a Google server is present with the accused devices at the time of importation, just as it does not show that a second mobile communications device is imported with the first mobile communications device. BHM therefore has failed to demonstrate that the accused products as imported comprise “a second mobile communications device” and “a central unit” as required by all asserted claims of the '593 patent, or that these components are imported by Respondents and [*See* RX-0666C

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(Bishop RWS) Q/A 238. The accused products therefore do not practice the asserted claims of the '593 patent at the time of importation.

3. Indirect Infringement at the Time of Importation

BHM alleges that Samsung and LG indirectly infringe system claims 7 and 18 of the '593 patent, but the evidence shows otherwise. For the reasons stated above, the devices associated with Locations+ and Latitude do not meet every limitation of the asserted claims, as required for indirect infringement. In addition, BHM fails to prove additional elements required for a finding of indirect infringement.

First, BHM has failed to prove a required underlying act of direct infringement. BHM has not provided evidence of specific instances of alleged direct infringement by a third party. RX-0666C (Bishop RWS) Q/A 239. With respect to Latitude, BHM argues only that "it is highly likely that [] devices were using Latitude to locate other Licensees while Latitude was operational," which is not enough to support a finding of direct infringement. *See id.* at Q/A 229. BHM also has not presented evidence that the devices associated with Locations+ necessarily practice the claims of the '593 patent. RX-0666C (Bishop RWS) Q/A 240. As discussed above, the products associated with Locations+ and Latitude do not satisfy all claim limitations and, furthermore, they have substantial noninfringing uses described below.

Second, BHM has not adduced evidence sufficient to show the knowledge and intent required for a finding indirect infringement. BHM fails to identify evidence of pre-complaint knowledge of the infringement allegations or the required intent to cause infringement. BHM also does not offer evidence that Samsung and LG willfully blinded themselves to any infringing conduct.

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Third, as to inducement, the record evidence does not show that Samsung and LG took affirmative steps to induce infringement. Regarding Locations+, Mr. Zatkovich testified regarding various manuals and marketing materials concerning Google+, but without explaining how these manuals demonstrate that Respondents or [] had any specific intent or took any affirmative steps to induce infringement. CX-1067C (Zatkovich DWS) Q/A 678-85. What these materials do show is that Respondents and [] have manuals that explain the general benefits of Google+. RX-0666C (Bishop RWS) Q/A 252, 253. None of the cited portions of these documents demonstrates or teaches using Locations+ to infringe the '593 patent. *Id.* With respect to Latitude, Mr. Zatkovich testified regarding documents that explain the benefits of the Latitude, but do not demonstrate or teach using Latitude to infringe the '593 patent. CX-1067C (Zatkovich DWS) Q/A 737-739; RX-0666C (Bishop RWS) Q/A 252, 253.

Fourth, as to contributory infringement (discussed in more detail below), BHM has not shown that the accused products constitute a material part of the inventions and are not staple articles of commerce suitable for substantial noninfringing use. *See Electronic Digital Media Devices*, Comm'n Op. at 44.

4. Substantial Noninfringing Uses

a. Locations+

The record evidence demonstrates that accused devices associated with Locations+ have substantial noninfringing uses. Although BHM identified Locations+ as the alleged material component for purposes of contributory infringement, BHM relies on various features other than the Locations+ feature of the Google+ application in order to establish the allegedly infringing system. *See* CX-1067C (Zatkovich DWS) Q/A 241. Specifically, BHM's infringement allegations rely upon []

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[

]. *See, e.g.,* Zatkovich Tr. 72 (“[

]”).

Regardless of what specifically comprises the material component for the contributory infringement analysis, the record evidence shows substantial noninfringing uses.

For instance, the evidence shows that devices associated with Locations+ have substantial noninfringing uses not related to sharing locations. In particular, the devices are used for communications, entertainment, connectivity, directions, maps, business, web searching, and other functions. RX-0666C (Bishop RWS) Q/A 242.

The Google+ application and ecosystem also have substantial noninfringing uses, including all social networking functionalities, such as chatting, email, picture sharing, and other uses. RX-0666C (Bishop RWS) Q/A 243. Google+ can be used on a variety of devices, such as laptop and desktop computers, and is not restricted to wireless communications devices. *See, e.g.,* RX-0468C (Oplinger RWS) Q/A 11. Publicly available documents and videos demonstrate these substantial noninfringing uses. For example, RX-0470 (Webpage, Google+ Android Apps on Google Play), RX-0472 (Webpage, Google+ Mobile), and RPX-0346 (YouTube Video “Google+ for Android”) all show that Google+ has uses aside from sharing locations. In addition, CX-0488 (Samsung - Samsung Galaxy Rugby Pro Ruggedized 4G LTE Smartphone User Manual), a Samsung manual that Mr. Zatkovich discusses his testimony, states that Google+ facilitates messaging and sharing with other users and permits uploading of videos and photos, attesting to its substantial noninfringing uses. CX-1067C (DWS Zatkovich) Q/A 155.

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Indeed, many of the materials that Mr. Zatkovich cites in his direct testimony highlight the noninfringing uses of Google+. *See* CX-1067C (Zatkovich DWS) Q/A 678-684.

The Locations+ feature of Google+ also has substantial noninfringing uses, such as when a user shares his location with others, but others do not reciprocally share their locations with the user, such that the user will never receive the locations of others on his device. RX-0666C (Bishop RWS) at Q/A 244. This is evident both from Andrew Oplinger's deposition and Mr. Zatkovich's own testimony, in which he stated that "[i]n Locations+ it's possible to see another user's location without sharing your own." JX-0083 (Oplinger Dep.) at 17; Zatkovich Tr. 72-73. Locations+ users can also elect to share only the city in which they are located, called "city-level" sharing, rather than their precise location, which does not provide other users with precise location information usable to arrive at a location, a requirement of the claim limitations as construed above. RX-0666C (Bishop RWS) Q/A 244. For example, RX-0577 (Webpage, Google+ Location Settings) shows options that the user sets for enabling or disabling location sharing and for selecting who can see his current city or pinpoint location. *Id.* If a user enables city-level rather than pinpoint sharing, the second user's location will be presented as "a randomized point" in the city from which the user last reported his location. Oplinger Tr. 1385.

b. Latitude

The record evidence shows that devices associated with Latitude had substantial noninfringing uses. Although has identified Latitude as the alleged material part of the overall combination of the allegedly infringing system, the alleged domestic industry is based upon the [] device associated with Latitude. *See* RX-0666C (Bishop RWS) Q/A 247.

The evidence shows that devices previously associated with Latitude have substantial noninfringing uses not related to sharing locations. *Id.* RX-0666C (Bishop RWS) at Q/A 248.

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The devices are primarily used for communications, entertainment, connectivity, directions, maps, business, web searching, and other functions. *Id.* In addition, the Google Maps application, which provides the map for Latitude, has substantial noninfringing uses including obtaining directions, navigation, accessing consumer reviews, and obtaining local shopping and dining recommendations. *Id.* at Q/A 249. The record contains many [] documents that highlight the noninfringing uses of Google Maps. For example, CX-0849 ([] - User Guide) and CX-0850 ([] - User Guide) both describe using Google Maps to view real-time traffic situations, receive detailed directions, and download and save maps. In addition, CX-0853 ([] - User Guide) and CX-0845C ([] - User Guide) both discuss these noninfringing uses. RX-0666C (Bishop RWS) at Q/A 249.

E. Technical Prong of the Domestic Industry Requirement

To prove satisfaction of the technical prong of the domestic industry requirement for the asserted '593 patent, BHM relies on [] devices installed with Google Locations+ and Google Latitude. As discussed above, however, the record evidence fails to show that [] devices (and all accused devices regardless of manufacturer) with Locations+ and Latitude practice claims 7 and 18 of the '593 patent. Accordingly, BHM has failed to demonstrate that the [] devices satisfy the technical prong of the domestic industry requirement.

F. Validity

1. Priority Date

The patent application that resulted in the '593 patent was filed on September 8, 2000. *See* JX-0011 ('593 patent). The '593 patent then issued on September 9, 2003. *Id.* BHM had previously alleged the asserted claims were entitled to a priority date of May 3, 2000, or

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alternatively June 4, 2000. *See, e.g.*, RX-0462C (Heppe DWS) Q/A 22; CX-1400C (Zatkovich RWS) Q/A 95. Inasmuch as the prior art references discussed below predate May 3, 2000, the priority date of the '873 patent is not at issue in this investigation. *See* RX-0462C (Heppe DWS) Q/A 23.

2. Anticipation – Degnbol

The Degnbol reference (“Degnbol”) is PCT application PCT/DK99/00548 (International Publication Number WO 00/22860), is titled “A Method and a System for Transmitting Data Between Units,” was filed on October 12, 1999, and has a priority date of October 12, 1998. *See* RX-0093 (Degnbol). It was published internationally on April 20, 2000. *Id.* These dates pre-date BHM’s earliest alleged '593 priority date of May 3, 2000. Therefore, Degnbol is prior art to the '593 patent under at least 35 U.S.C. § 102(a). *See* CX-1400C (Zatkovich RWS) Q/A 107-115. Degnbol was not cited or considered by the examiner during prosecution of the '593 patent. *See* JX-0012 ('593 file history).

As described in the Abstract, Degnbol “relates to a method and a system for automatic notification of a user ‘A’ of the entry of pre-selected user ‘B’ into a pre-determined area (or proximity to a particular location). The notification may further depend on a successful match of user specified parameters. The location of users ‘A’ and ‘B’ is determined by reference to the position of their personal wireless communication unit, such as a mobile telephone or a pager.” RX-0093 (Degnbol) (Abstract).

In Degnbol, the mobile users are equipped with communications devices such as a data-enabled cellular phone. RX-0093 (Degnbol) at col. 20, lns. 29-30. Degnbol discloses the steps of determining the positions of the mobile units, storing the positions along with unit identifications in the database, and finding the distance between the two units. The methods of

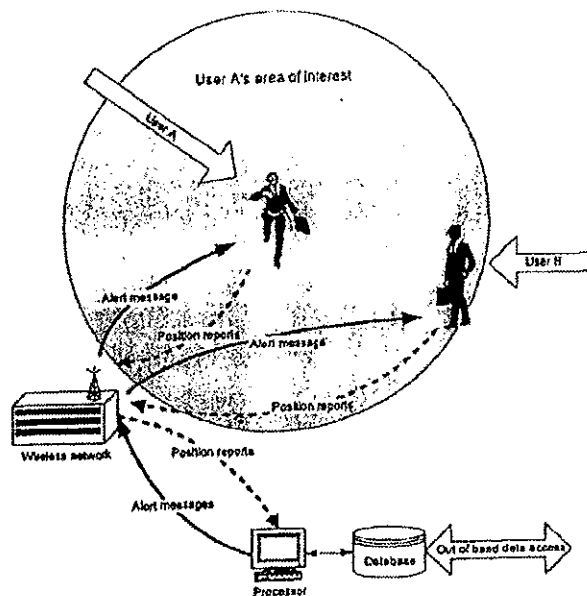
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position determination include triangulation, GPS, AOA, TDOA, Radio Signal Mapping, power/signal attenuation or a combination thereof. *Id.* at col. 1, lns. 29-34. As illustrated in Figure 1 (reproduced here), Degnbol teaches position reports flowing outward from two mobile communications devices via a wireless network to a processor coupled to a database. *See id.*; RX-0462C (Heppie DWS) Q/A 42.

When the processor determines “User B” has entered the area of interest for “User A,” it checks for profile matches. If a profile match between User A and User B is found, then alerts flow outward from the processor to the two users. *Id.* at col. 1, lns. 29-34.

Degnbol discloses that the outgoing message, called the “alert message,” can be text, graphics, a map, or diagram with a pointer showing the location of the user, a video clip, sound, a vibration, or a combination. RX-0093 (Degnbol) at col. 5, lns. 16-20; Heppie Tr. 796-798. Degnbol teaches this alert can also optionally include increasing the intervals between alert signals as a function of proximity (*i.e.*, to let users know they are getting closer to each other). RX-0093 (Degnbol) at col. 5, lns. 22-24. In other words, the outgoing message is based upon the locations of both users. Heppie Tr. 796-798.

Degnbol also teaches that the transmission of alerts is determined by matching user preferences and characteristics. For example “a user may specify that he is interested in being alerted when . . . i.e. a Latin American woman, between the ages of 20 and 25, who is interested



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in ‘Backgammon’ and ‘Travelling’ [is in the proximity].” RX-0093 (Degnbol) at col. 16, lns. 18-21. In addition, Degnbol teaches an alternative embodiment where transmission of alert signals can be configured on an individual “Buddy List” basis, which is “a list of users whose location and/or movements the user wishes to be notified of.” *Id.* at col. 9, ln. 31 – col. 10, ln. 3.

Degnbol further teaches that other configuration options include the ability of the user to disable and re-enable their participation in the system at will. RX-0093 (Degnbol) at col. 13, lns. 13-14. For example, Degnbol teaches that a user can configure the system so that he does not receive any alerts between 10:00 p.m. and 8:00 a.m., avoiding nightly interruptions. *Id.* at col. 10, lns. 27-29. Further, as another example, a user can configure the system so that he can pass through an area incognito, without his location being detected and/or transmitted to other users, while still retaining the option to be alerted of others, if desired. *Id.* at col. 13, lns. 14-15.

a. Claim 7

The evidence adduced by Respondents demonstrates, clearly and convincingly, that Degnbol discloses all limitations of asserted claim 7 of the ’593 patent.

i. “A system for matching users of mobile communications devices comprising”

Degnbol discloses “a system for matching users of mobile communications devices.” RX-0093 (Degnbol) at col. 18, lns. 27-33; *see* RX-0462C (Heppe DWS) Q/A 43.

ii. “a first mobile communications device for transmitting information defining a location of the first mobile communications device”

This claim limitation requires a first mobile communications device for transmitting information defining a location. Degnbol discloses this communications device in Figure 1, and further discusses this communications device in the specification. RX-0093 (Degnbol) at col. 1,

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Ins. 22-27; col. 1, Ins. 29-34; col. 9, Ins. 21-23; col. 20, Ins. 29-32; *see* RX-0462C (Heppe DWS) Q/A 43.

The parties dispute whether Degnbol discloses “transmitting information defining a location,” but the record evidence shows that it does so. *See* Compl. Br. at 536; Resps. Br. at 209-12; RX-0462C (Heppe DWS) Q/A 45.

For example, Figure 1 of Degnbol shows “position reports” flowing from the users’ mobile communications devices via the wireless network to the processor that is part of the “central unit” as claimed in the ’593 patent. RX-0462C (Heppe DWS) Q/A 45; RX-0093 (Degnbol) at Fig. 1. As Dr. Heppe testified, this disclosure alone is sufficient to disclose the first and second mobile communications devices for transmitting information defining a location. RX-0462C (Heppe DWS) Q/A 45.

Degnbol further discloses that Figure 1 illustrates that the mobile devices perform “mobile-based” position calculations. RX-0093 (Degnbol) at col. 20, Ins. 29-32. Dr. Heppe testified that one of ordinary skill in the art at the time of the alleged invention would understand a “mobile-based” position calculation to mean that the position is calculated in the mobile device and then reported to the network and the processor, or “central unit.” *See* RX-0462C (Heppe DWS) Q/A 45. Methods to do this, including the use of a GPS receiver, were well known in the art at the time. *Id.* Indeed, Degnbol specifically discloses use of “second- and third- generation cellular . . . systems” to “accomplish [position reporting] in near real time,” and the use of GPS. RX-0093 (Degnbol) at col. 19, Ins. 31-35; col. 5, Ins. 7-11.⁸² Thus, Degnbol discloses two

⁸² In addition, the Fraccaroli reference (discussed below) notes that 2nd and 3rd generation handsets can contain GPS to facilitate mobile based-positioning. RX-0042 (Fraccaroli) at col. 6, Ins. 45-59 (“[H]andsets in GSM and other so-called 2nd generation cellular systems are presently required to be capable of providing information about the user’s location and thus facilitate

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mobile communications devices for “transmitting information defining the location” of the mobile communications devices.

BHM’s expert Mr. Zatkovich testified that Degnbol does not disclose transmitting information defining a location inasmuch as he did not see any discussion within Degnbol of “GPS actually within the mobile device.” *See* Zatkovich Tr. 1639-1640; CX-1400C (Zatkovich RWS) Q/A 107. However, Mr. Zatkovich also testified that he does not know the difference between “mobile-based” positioning and “network based” positioning, which were well-known terms in the art at the time of the invention. Zatkovich Tr. 1627-1639; RX-0812 (“Positioning GSM Telephones”); *see* RX-0462C (Heppe DWS) Q/A 45. In addition, in the Background of the Invention section of the specification, Degnbol discloses three references that explicitly teach use of “GPS actually within the mobile device.” *See* Zatkovich Tr. 1640; RX-0806 (EP No. 0546758A2); RX-0809 (WO 1994012892); RX-0810 (WO 1995021511). Mr. Zatkovich testified that he had not previously reviewed these three references. Zatkovich Tr. 1640. Mr. Zatkovich further testified that the references disclose a mobile device with GPS functionality used to calculate its own position. Zatkovich Tr. 1643-1646.

Therefore, Degnbol teaches the claim 7 limitation “transmitting information defining a location” through the disclosure of GPS receivers.

As previously discussed with respect to claim construction, sending a position report based on a GPS receiver is not necessary to meet the limitation “transmitting information defining a location.” *See* RX-0462C (Heppe DWS) Q/A 46; CX-1400C (Zatkovich RWS) Q/A 108. Claim 7 only requires that the mobile device transmit “information defining a location,”

mobile-based positioning. . . . These handsets use location methods other than triangulation, such as adoption of a global positioning system (GPS) receiving device, to determine, or assist in the determination of, location.”).

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which can take many different forms. *See* RX-0462C (Heppe DWS) Q/A 46. For example, dependent claim 14 of the '593 patent recites that “information defining a location” can be an address, a marker, co-ordinates, or a telephone number. *Id.*; JX-0011, ('593 patent) at cl. 14. In addition, other methods for locating devices are disclosed in the '593 specification, such as the use of transceivers to triangulate the position of a mobile communications device. RX-0462C (Heppe DWS) Q/A 46; JX-0011 ('593 patent) at col. 13, ln. 59 – col. 14, ln. 1). Therefore, a registration request from a mobile device that identifies a specific tower meets the “information defining a location” limitation because the registration request is transmitted from the mobile device and the tower location is known to the network. RX-0462C (Heppe DWS) Q/A 46. Degnbol specifically discloses this approach at column 1, lines 22-27. Degnbol also specifically discloses use of and other position determining methods. RX-0093 (Degnbol) at col. 5, lns. 7-11; *see also* RX-0807 (U.S. Patent No. 6,002,936); RX-0812 (“Positioning GSM Telephones”). Thus, Degnbol also discloses the “transmission of information defining a location” limitation through a “network-based” position calculation of a mobile device. RX-0462C (Heppe DWS) Q/A 46.

iii. “a second mobile communications device for transmitting information defining a location of the second mobile communications device and a user sending status”

This claim limitation requires a second mobile communications device for transmitting information defining a location. Degnbol discloses this communications device in Figure 1, and further discusses this communications device in the specification. RX-0093 (Degnbol) at col. 1, lns. 22-27; col. 1, lns. 29-34; col. 9, lns. 21-23; col. 20, lns. 29-32; *see* RX-0462C (Heppe DWS) Q/A 43.

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The parties dispute whether Degnbol discloses “transmitting information defining a location,” but as discussed above, the record evidence shows that it does so. *See* Compl. Br. at 536; Resps. Br. at 209-12.

The parties also dispute whether Degnbol discloses “a user sending status,” but the record evidence shows that it does under all proposed constructions of the term. *See* Compl. Br. at 536-37; Resps. Br. at 212-15; *see* RX-0462C (Heppe DWS) Q/A 47.

Specifically, Degnbol discloses a user’s ability “to disable and re-enable their participation in the system at will,” allowing the user the ability to operate “incognito” and pass through an area without their location being detected, “while retaining the option to be alerted of others’ presence.” RX-0093 (Degnbol) at col. 13, lns. 4-15. Dr. Heppe testified that one of ordinary skill in the art would understand Degnbol’s disclosure of the user’s ability “to disable . . . their participation in the system” allowing the user “to pass through any area incognito [*i.e.*, without being detected]” to mean the user has the option to disable their current location from being known to the central unit and/or sent to other mobile device users. RX-0462C (Heppe DWS) Q/A 47. This disclosure is consistent with the understanding of the first-named inventor, Mr. Drutman, who testified that the user sending status limitation is like a “do not disturb bit.” *See, e.g.*, JX-0062C (C. Drutman Dep.) at 151.

Degnbol also discloses a status parameter stored in memory at the central unit that satisfies the disputed limitation. *See* RX-0093 (Degnbol) at Table 1; col. 21, lns. 23-29 (“The database also includes permission information that determines whether other users may be notified of the user’s activity. This database is relatively static, but may be dynamically updated to reflect changes user preferences [*sic.*].”). This disclosure corresponds to the disclosures of the ’593 patent that teach that the sending status is preferably transmitted to the central server for

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storage in memory. RX-0462C (Heppe DWS) Q/A 47; *see* JX-0011 ('593 patent) at col. 8, lns. 8-11; col. 9, lns. 29-34); Zatkovich Tr. 1586-1587.

As another example, Degnbol discloses that the system is based on mutual consent, meaning that permission of the polled party is required before notifying the party of a match. *See* RX-0462C (Heppe DWS) Q/A 47; RX-0093 (Degnbol) at col. 14, lns. 4-6; col. 20, lns. 26-28. For example, the stored profile for User B can contain this necessary permission to notify User A as to User B's whereabouts. RX-0462C (Heppe DWS) Q/A 47; *see* RX-0093 (Degnbol) at col. 9, ln. 34 – col. 10, ln. 3. Providing such permission requires a user sending status. Degnbol also discloses that the sending status can be set from the handset and transmitted to the central unit for storage. *See* RX-0093 (Degnbol) at col. 11, lns. 1-3; col. 9, ln. 34 – col. 10, ln. 3.

These disclosures correspond to the '593 patent's disclosures that "the above-mentioned receive/transmit [sending] status 212 and 222 may actually be a data element within the preference/profile data 213 and 223." *See* RX-0462C (Heppe DWS) Q/A 47; JX-0011 ('593 patent) at col. 7, lns. 47-49.

Dr. Heppe testified that these disclosures in Degnbol show a "user sending status" as taught and claimed in the '593 patent under all proposed constructions. RX-0462C (Heppe DWS) Q/A 48. Degnbol discloses a "user sending status" under the plain and ordinary meaning of the term, which is the construction proposed by BHM and OUII. *Id.* Dr. Heppe also testified that Degnbol discloses the limitation under BHM's alternative proposed construction and Respondents' proposed construction, inasmuch as the "ability to send or not send" is implemented at the server according to the status indication sent by the mobile device. *Id.*

Mr. Zatkovich and BHM contend that Degnbol does not disclose a "user sending status" "because there is no mechanism to prevent the mobile communications device (or the mobile

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system in the case of Degnbol) from sending its location to the server.” *See* Compl. Br. at 536-37; CX-1400C (Zatkovich RWS) Q/A 107, 109. Specifically, Mr. Zatkovich’s opined that, “if there is no ‘sending status’ enabled, the GPS in the device (or other location technology in the device) is not transmitting the location of the device.” CX-1400C (Zatkovich RWS) Q/A 109. However, as discussed above, Mr. Zatkovich’s interpretation of “sending status” is inconsistent with the specification of the ’593 patent, which describes the continuous transmission of information defining a location.

Nevertheless, even under Mr. Zatkovich’s interpretation of “user sending status,” Degnbol discloses this limitation. *See* RX-0462C (Heppe DWS) Q/A 50. For example, Degnbol discloses an embodiment where individual users are constantly located by the system’s universal tracking function. *Id.*; RX-0093 (Degnbol) at col. 1, lns. 22-27; col. 2, lns. 10-13; col. 22, lns. 10-13; Table 2. As Dr. Heppe testified, one of ordinary skill in the art at the time of the alleged invention would understand that these disclosures from Degnbol are associated with the registration and handoff process inherent in cellular communications systems. RX-0462C (Heppe DWS) Q/A 50. This registration and handoff is associated with a “power on” state for initial registration, as well as with handoffs as the unit remains powered and moves through the network. RX-0462C (Heppe DWS) Q/A 50. When the mobile unit is turned off, no tracking takes place. *Id.* When the mobile unit is turned on, it is tracked. *Id.* This constitutes a “sending status” under Mr. Zatkovich’s interpretation of the term based on local control through a power-on state, inasmuch as powered and connected units are reported to a network, while unpowered units are not. *Id.*; *see also, e.g.*, JX-0011 (’593 patent) at col. 7, lns. 4-15; claim 9. Therefore, the record evidence shows that Degnbol discloses this limitation under all proposed constructions of the term.

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- iv. **“a central unit having a processor coupled to a memory, the central unit capable of communicating with the first mobile communications device over a first wireless communications link and with the second mobile communications device over a second wireless communications link, the memory storing a first user profile including information associated with a user of the first mobile communications device and a second user profile including information associated with a user of the second mobile communications device, wherein the central unit receives the user sending status from the second mobile communications device and the information defining the locations of the first and the second mobile communications devices and wherein the processor receives the first and the second user profiles to match information of the users and, if there is a match and depending upon the user sending status, effects the transmission to the first mobile communications device of locating information based upon the information defining the locations of the first and the second mobile communications devices”**

The record evidence shows that Degnbol discloses all the elements of this claim limitation. *See, e.g.*, RX-0462C (DWS Heppe) at Q/A 43-55. The only item in this limitation that the parties dispute Degnbol discloses is “locating information” that is “based upon the information defining the locations of the first and second mobile communications devices.” *See* Compl. Br. at 537; Resps. Br. at 215-18.

The evidence shows clearly and convincingly that Degnbol discloses “locating information based upon the information defining the locations of the first and the second mobile communications devices.” *See* RX-0462C (Heppe DWS) Q/A 51. Specifically, Degnbol discloses transmitting proximity-based alerts and a variable signal, such as a vibration or light signal, based on the relative distance between the mobile users. *See, e.g.*, RX-0093 (Degnbol) at col. 5, lns. 22-24 (“In an optional implementation, closer proximity decreases the intervals between alert signals (i.e. light or sound emission), resulting in an escalation of signal frequency

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as users approach each other.”); col. 11, lns. 10-11; col. 20, lns. 1-2; *see also* RX-0462C (Heppe DWS) Q/A 51; Heppe Tr. 796-798. As Dr. Heppe testified, one of ordinary skill in the art at the time of the alleged invention would understand that a user can find an object or location, or arrive at a location, if instructed that “you are getting hotter” or “you are getting colder” as the user moves about. RX-0462C (Heppe DWS) Q/A 51. Dr. Heppe further testified that one of ordinary skill in the art would also understand that the variable proximity alert is “derived from the information defining the locations of both mobile communications devices” because the frequency and/or intensity of the variable signal is derived from both mobile devices’ locations, becoming more frequent or intense as the users of the mobile devices approach each other, and less frequent or intense as they move farther apart. *Id.* Thus, Degnbol discloses the claimed “locating information” under all proposed constructions of the term. *Id.*

The Degnbol disclosure corresponds to an embodiment in the ’593 patent that describes an “object finder or object-carrier tracking.” JX-0011 (’593 patent) at col. 12, lns. 14-31. Specifically, the ’593 patent teaches that when “goods are stolen and the currency becomes separated from the carrier, a warning indicator may be forwarded by the central server 25 when, for example, the physical distance between the goods and the carrier becomes greater than a maximum set threshold.” *Id.* at col. 12, lns. 21-25. This further demonstrates that Degnbol teaches the “locating information” limitation. *See* RX-0462C (Heppe DWS) Q/A 53 (comparing similar embodiments in Degnbol and the ’593 patent).

Degnbol also discloses the “locating information” limitation under BHM and Mr. Zatkovich’s proposed construction of the term. For example, Degnbol discloses the delivery of “information about the distance between user ‘A’ and user ‘B,’ [with] graphics, such as an image or an icon, a map or diagram with a pointer showing the location of the user.” RX-0093

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(Degnbol) at col. 16, Ins. 16-20. When this information is sent as a result of the proximity test disclosed in Degnbol, this information satisfies the limitation of being “derived . . . from both locations,” and would allow a user to “arrive at a location” or “contact or find another device or location,” as required by BHM’s proposed construction. RX-0462C (Heppe DWS) Q/A 53; RX-0093 (Degnbol) at col. 11, Ins. 10-11; col. 13, Ins. 4-15; col. 20, Ins. 1-2; Heppe Tr. 796-798. This disclosure in Degnbol also tracks the disclosure in the ’593 patent’s “preferred embodiment.” See JX-0011 (’593 patent) col. 9, Ins. 3-14 (disclosing transmission of “locating information . . . indicating that a ‘matching’ and ‘available’ mobile communications device is in proximate relation to another. Such locating information may include either graphic or textual information and may be in any known format, e.g. a graphical map, textual directions, a video of the actual route to be traveled etc.”). Thus, Degnbol discloses the “locating information” limitation under all proposed constructions.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 7 of the ’593 patent is invalid as anticipated by Degnbol.

b. Claim 18

The evidence adduced by Respondents demonstrates, clearly and convincingly, that Degnbol discloses all limitations of claim 18 of the ’593 patent.

i. “The system according to any of claims 1, 4 or 7”

As set forth above, Degnbol satisfies all limitations of claim 7 of the ’593 patent.

ii. “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information”

Degnbol discloses the additional limitations of dependent claim 18, “wherein the central unit transmits additional information to at least one of the first and second mobile

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communications devices with the locating information.” *See* RX-0462C (Heppe DWS) Q/A 67. For example, Degnbol describes sending a notification that “[a] Manchester United Football fan is in the proximity” or that “the generated message may comprise information relating to the subject of interest selected by the associated user.” *Id.*; RX-0093 (Degnbol) at col. 5, lns. 1-5; col. 20, lns. 18-21. This personal information and information relating to a subject of interest are both examples of additional information sent with the locating information. RX-0462C (Heppe DWS) Q/A 67. BHM does not dispute that Degnbol discloses this additional limitation of claim 18. *See* Compl. Br. at 536-37; CX-1400C (Zatkovich RWS) Q/A 155.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 18 of the ’593 patent is invalid as anticipated by Degnbol.

3. Anticipation – Fraccaroli

The record evidence shows, clearly and convincingly, that U.S. Patent No. 6,549,768 (“Fraccaroli”) discloses all elements of the asserted claims of the ’593 patent, under all proposed constructions of the claim terms. *See, e.g.*, RX-0462C (Heppe DWS) Q/A 122-156. Fraccaroli is titled “Mobile Communications Matching System,” and was filed on August 24, 1999 by Federico Fraccaroli. RX-0042 (Fraccaroli). Fraccaroli is therefore prior art to the ’593 patent under at least 35 U.S.C. § 102(e). *See id.* Furthermore, Fraccaroli was not cited or considered by the examiner during prosecution of the ’593 patent. *See* JX-0012 (’593 file history).

As illustrated in Figure 1, Fraccaroli discloses a location-dependent system for matching users of mobile communications devices. RX-0462C (Heppe DWS) Q/A 125; RX-0042 (Fraccaroli) at Fig. 1. Figure 1 and the corresponding text of Fraccaroli disclose a system that includes a plurality of mobile stations and a server that stores “matching profiles” corresponding to the plurality of mobile stations. RX-0462C (Heppe DWS) Q/A 125; RX-0042 (Fraccaroli) at

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col. 5, lns. 26-36; Fig. 1. The server includes a “matching algorithm” that can be used to match the matching profiles when mobile stations are located in the same area. RX-0462C (Heppe DWS) Q/A 125; RX-0042 (Fraccaroli) at col. 5, lns. 37-47. When there is a match, the users of the two mobile stations are advised of each other. RX-0462C (Heppe DWS) Q/A 125; RX-0042 (Fraccaroli) at col. 10, lns. 40-67. The claimed invention can be applied, for example, to a dating service or to advise friends that are in proximate relation to each other. RX-0462C (Heppe DWS) Q/A 125; RX-0042 (Fraccaroli) at col. 8, ln. 57 – col. 9, ln. 5.

a. Claim 7

i. “A system for matching users of mobile communications devices comprising”

Fraccaroli discloses “a system for matching users of mobile communications devices.” RX-0042 (Fraccaroli) at Abstract; col. 1, lns. 10-13; col. 2, lns. 16-21; col. 5, lns. 26-36; Fig. 1; *see* RX-0462C (Heppe DWS) Q/A 126.

ii. “a first mobile communications device for transmitting information defining a location of the first mobile communications device”

This claim limitation requires a first mobile communications device for transmitting information defining a location. Fraccaroli discloses this communications device in Figure 1, and further discusses this communications device in the specification. RX-0042 (Fraccaroli) at col. 2, lns. 16-21; col. 2, lns. 46-50; col. 3, lns. 46-48; col. 3, lns. 51-55; col. 6, lns. 46-54; col. 6, lns. 60-65; col. 7, lns. 4-8; *see* RX-0462C (Heppe DWS) Q/A 126.

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- iii. **“a second mobile communications device for transmitting information defining a location of the second mobile communications device and a user sending status”**

This claim limitation requires a second mobile communications device for transmitting information defining a location. Fraccaroli discloses this communications device in Figure 1, and further discusses this communications device in the specification. RX-0042 (Fraccaroli) at col. 2, lns. 16-21; col. 2, lns. 46-50; col. 3, lns. 46-48; col. 3, lns. 51-55; col. 6, lns. 46-54; col. 6, lns. 60-65; col. 7, lns. 4-8; *see* RX-0462C (Heppe DWS) Q/A 126.

The parties dispute whether Fraccaroli discloses a “user sending status,” but the record evidence shows that it does so. *See* Compl. Br. at 539-40; Resps. Br. at 221-23.

As Dr. Heppe testified, Fraccaroli’s disclosure of a user’s ability to restrict access to location information and/or contact information using an input process on a handset teaches “a user sending status” under all proposed constructions. RX-0462C (Heppe DWS) Q/A 128-30. Fraccaroli states, “[t]he mobile station user shall preferably be able to restrict access to the location information (either permanently or on a per call basis).” RX-0042 (Fraccaroli) at col. 7, lns. 38-40. Thus, Fraccaroli discloses that the user has the ability to disable the sending of location information from the mobile station to the central unit. Dr. Heppe testified that a person of ordinary skill in the art would understand that a user’s ability to restrict the sending of location information discloses “a user sending status” under all proposed constructions. RX-0462C (Heppe DWS) Q/A 128.

Dr. Heppe also testified that Fraccaroli’s disclosure of a user’s ability to control when matching is permitted through an input process on a handset discloses the claimed “user sending status” under all proposed constructions. RX-0462C (Heppe DWS) Q/A 128. In particular,

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Fraccaroli teaches that a “user has the option to enable or disable matching by a simple input process using the hand set.” RX-0042 (Fraccaroli) at col. 10, lns. 5-8. “Matching parameters 204 allows the user to specify the constraints for stating when matching should be attempted These parameters typically would specify . . . the time at which matching should be attempted (for example, prohibiting matches between 9 a.m. and 5 p.m.).” *Id.* at col. 9, lns. 40-49; *see also id.* at col. 10, lns. 11-15; col. 10, lns. 56-61. According to Fraccaroli, “matching parameters” can be selected by a user via a secure internet page accessible from the user’s mobile station or a personal computer. *Id.* at col. 8, lns. 48-56. These disclosures in Fraccaroli track the teaching of the ’593 patent and named inventor Charles Drutman’s understanding of the user sending status limitation. *See, e.g.,* JX-0062C (C. Drutman Dep.) at 151; JX-0011 (’593 patent) at col. 7, lns. 49-52. Thus, as Dr. Heppe testified, a person of ordinary skill in the art would understand these teachings in Fraccaroli to disclose “a user sending status” under all proposed constructions. RX-0462C (Heppe DWS) Q/A 128.

Mr. Zatkovich and BHM contend that Fraccaroli does not disclose “a user sending status” because Mr. Zatkovich interprets this limitation as requiring that the mobile device be prohibited from sending information defining a location to the central unit if the “user sending status” is disabled. *See* Compl. Br. at 539-40; CX-1400C (Zatkovich RWS) Q/A 128-29. However, for the reasons explained above, this interpretation of “a user sending status” is inconsistent with the specification of the ’593 patent. RX-0462C (Heppe DWS) Q/A 129. Nevertheless, even under Mr. Zatkovich’s interpretation of this term, Fraccaroli discloses that “[t]he mobile station user shall preferably be able to restrict access to the location information,” thus satisfying the claim limitation. *See* RX-0042 (Fraccaroli) at col. 7, lns. 38-40. Furthermore, as Dr. Heppe testified, Fraccaroli’s description of mobile station registration also discloses “a user sending status” under

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Mr. Zatkovich's interpretation because registration is the process by which the cell location and power-on state of mobile stations is made known to the network. RX-0462C (Heppe DWS) Q/A 130; *see also* RX-0042 (Fraccaroli) at col. 3, ln. 64 – col. 4, lns. 63.

- iv. **“a central unit having a processor coupled to a memory, the central unit capable of communicating with the first mobile communications device over a first wireless communications link and with the second mobile communications device over a second wireless communications link, the memory storing a first user profile including information associated with a user of the first mobile communications device and a second user profile including information associated with a user of the second mobile communications device, wherein the central unit receives the user sending status from the second mobile communications device and the information defining the locations of the first and the second mobile communications devices and wherein the processor receives the first and the second user profiles to match information of the users and, if there is a match and depending upon the user sending status, effects the transmission to the first mobile communications device of locating information based upon the information defining the locations of the first and the second mobile communications devices”**

The record evidence shows that Fraccaroli discloses all the elements of this claim limitation. *See, e.g.*, RX-0462C (Heppe DWS) Q/A 122-156. The only element in this limitation that the parties dispute Fraccaroli discloses is “locating information” that is “based upon the information defining the locations of the first and second mobile communications devices.” *See* Compl. Br. at 540; Resps. Br. at 223-25.

However, the evidence shows clearly and convincingly that Fraccaroli discloses “locating information based upon the information defining the locations of the first and the second mobile communications devices.” *See* RX-0462C (Heppe DWS) Q/A 131. Specifically, Fraccaroli discloses transmitting a “message signal” to a mobile station that, in a preferred embodiment, “is

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a prompt instructing the user of the mobile station of the match and prompting them to initiate a phone call with the mobile station with which they have been matched.” RX-0042 (Fraccaroli) at col. 10, Ins. 51-56. Fraccaroli further discloses that the “prompt could also include . . . information in the profile of the user of the other mobile station.” *Id.* at col. 10, Ins. 56-63. Inasmuch as “the location information . . . for each mobile station [is] . . . stored in the data profile for the corresponding USER ID,” the “prompt” may also include location information. *See id.* at col. 7, Ins. 4-8. Mr. Zatkovich testified that Fraccaroli discloses that any information stored in the user profile, including the location information disclosed at column 7, lines 4-8, could be sent as the prompt resulting from a match. Zatkovich Tr. 1649-1650. Fraccaroli therefore discloses sending a phone number or location information after a match, and thus discloses “locating information.” RX-0462C (Heppe DWS) Q/A 131.

Despite Fraccaroli’s disclosure that the “prompt” includes “the phone numbers of the persons being matched,” Mr. Zatkovich and BHM contend that the “message signal” described in Fraccaroli does not include a phone number. *See* Compl. Br. at 540; CX-1400C (Zatkovich RWS) Q/A 131. Although Fraccaroli does describe one embodiment that provides anonymity, Fraccaroli also describes other embodiments that do not do so. RX-0462C (Heppe DWS) Q/A 131. Furthermore, as Dr. Heppe testified, a person of ordinary skill in the art would understand that prompts to initiate a call and/or prompts that include a user’s location information are not only “information usable to arrive at a location,” which corresponds to BHM and OUII’s proposed construction, but are also “information that enables a user to contact or find another device or location,” which corresponds to Respondents’ proposed construction. RX-0462C (Heppe DWS) Q/A 131. Named inventor Mr. Drutman also testified that a phone number can be used to “contact or find” another user. *See* JX-0062C (C. Drutman Dep.) at 101-102, 103-104.

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Fraccaroli also discloses that the claimed locating information is “based upon the information defining the locations of the first and the second mobile communications devices,” which the parties agree should be construed to mean “derived from the information defining the locations of both mobile communications devices.” RX-0462C (Heppe DWS) Q/A 134. Fraccaroli discloses a system that provides a method of initiating contact between persons utilizing wireless communications networks “on the basis of their physical location.” RX-0042 (Fraccaroli) at col. 2, lns. 46-49. Fraccaroli explains that a “message signal” is sent to a mobile station only if there is a match, and only if the mobile stations are located in the same area. For example, claim 1 of Fraccaroli recites “comparing the profile of the two persons for similarities if the two persons are in the same location” and “in the event of a similarity, sending a signal message to each one of the two persons.” *Id.* at col. 11, lns. 47-50; col. 10, lns. 63-67; col. 12, lns. 30-33. As another example, dependent claim 13 of Fraccaroli, which depends from claim 1, is directed to a method that matches mobile stations only if they are located in a circular area centered at the location of one of the mobile stations. As Dr. Heppe testified, a “message signal” is sent only if the two mobile stations are within a certain proximity of each other, which indicates that the locating information is “based upon” or “derived from” the information defining the locations of the two devices. RX-0462C (Heppe DWS) Q/A 131, 134.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 7 of the '593 patent is invalid as anticipated by Fraccaroli.

b. Claim 18

i. “The system according to any of claims 1, 4 or 7”

As set forth above, Fraccaroli satisfies all limitations of claim 7 of the '593 patent.

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- ii. **“wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information”**

Fraccaroli discloses the additional limitations of dependent claim 18, “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information.” *See* RX-0462C (Heppe DWS) Q/A 144. For example, Fraccaroli discloses that the base station sends “message signals” to mobile stations that include a “prompt.” RX-0042 (Fraccaroli) at col. 10, lns. 51-56. The “prompt” may “include . . . information in the profile of the user of the other mobile station.” *Id.* at col. 10, lns. 61-63. Such profiles may include: “characteristics of the service subscriber such as business interests, personal interests, identity information of people whose proximity he wants to be aware of and put in contact with if close enough, etc.” *Id.* at col. 8, lns. 33-44. Fraccaroli’s disclosure of transmitting profile information, such as personal interests, discloses the additional limitation of claim 18. *See* RX-0462C (Heppe DWS) Q/A 144.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 18 of the ’593 patent is invalid as anticipated by Fraccaroli.

4. Anticipation – Granstam

U.S. Patent No. 6,587,691 (“Granstam”) is titled “Method and Arrangement Relating to Mobile Telephone Communications Network” and discloses a “buddy list” system. RX-0044 (Granstam). Granstam was filed on February 25, 2000, and is therefore prior art to the ’593 patent under at least 35 U.S.C. § 102(e). *See id.* Granstam was not cited or considered by the examiner during prosecution of the ’593 patent. *See* JX-0012 (’593 file history).

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As shown in Figure 3 of Granstam, a user of the “buddy list” system can define a list of “buddies” the user is interested in monitoring on a mobile device. RX-0044 (Granstam) at Fig. 3; RX-0462C (Heppe DWS) Q/A 88. Figure 5 illustrates typical data that a user might receive on the mobile device concerning the listed buddies. RX-0462C (Heppe DWS) Q/A 88; RX-0044 (Granstam) at col. 10, lns. 7-31. As shown, each buddy has a corresponding user status, such as “idle,” “busy,” “DND” (Do Not Disturb), and “offline.” RX-0462C (Heppe DWS) Q/A 88. In addition, locating information is shown for certain buddies, such as Docklands, Liverpool, Manchester, and Sweden. The specificity of the locating information, such as a city versus a country or a more precise position, is dictated by the proximity of the user of the mobile device to each buddy. RX-0462C (Heppe DWS) Q/A 88; RX-0044 (Granstam) at col. 8, lns. 52-63. Therefore, the locating information is based upon the locations of both the user and the buddy/buddies. RX-0462C (Heppe DWS) Q/A 88.

Figure 2 of Granstam shows the architecture of the buddy-list system. RX-0462C (Heppe DWS) Q/A 88. For example, Granstam discloses a “controlling arrangement (CA) 27,” which is a processor, and an “Information Database (IDB) 16,” which is a memory. RX-0462C (Heppe DWS) Q/A 88; RX-0044 (Granstam) at col. 5, lns. 23-25; col. 7, lns. 8-20. Also, referring to Figure 2, Granstam states that the “Visitor Location Register (VLR)” is generally implemented together with the “Mobile Switching Center (MSC).” RX-0462C (Heppe DWS) Q/A 88; RX-0044 (Granstam) at col. 5, lns. 23-25; col. 7, lns. 8-20; col. 6, ln. 66 – col. 7, ln. 2. The VLR is a database of currently-active mobile subscribers who are receiving service from the local MSC. RX-0462C (Heppe DWS) Q/A 88; RX-0044 (Granstam) at col. 5, lns. 23-25; col. 7, lns. 8-20; col. 6, lns. 63-66. Granstam further discloses that the IDB 16 (memory) can be

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implemented as part of the VLR, and that the CA 27 (processor) can be integrated in the MSC.

RX-0044 (Granstam) at col. 9, lns. 4-6.

a. Claim 7

i. “A system for matching users of mobile communications devices comprising”

Granstam discloses “a system for matching users of mobile communications devices.”

RX-0044 (Granstam) at col. 1, lns. 13-16; col. 2, ln. 64 – col. 3, ln. 10; col. 8, lns. 45-52; *see*

RX-0462C (Heppe DWS) Q/A 89-100.

ii. “a first mobile communications device for transmitting information defining a location of the first mobile communications device”

This claim limitation requires a first mobile communications device for transmitting information defining a location. Granstam discloses this communications device in Figure 2, and further discusses this communications device in the specification. RX-0044 (Granstam) at col. 1, lns. 11-13; col. 2, ln. 64 – col. 3, ln. 5; col. 6, lns. 2-3; col. 6, lns. 56-58; col. 7, lns. 41-43; col. 7, lns. 50-61; col. 9, lns. 11-15; *see* RX-0462C (Heppe DWS) Q/A 89.

iii. “a second mobile communications device for transmitting information defining a location of the second mobile communications device and a user sending status”

This claim limitation requires a second mobile communications device for transmitting information defining a location. Granstam discloses this communications device in Figure 2, and further discusses this communications device in the specification. RX-0044 (Granstam) at col. 1, lns. 11-13; col. 2, ln. 64 – col. 3, ln. 5; col. 6, lns. 2-3; col. 6, lns. 56-58; col. 7, lns. 41-43; col. 7, lns. 50-61; col. 9, lns. 11-15; *see* RX-0462C (Heppe DWS) Q/A 89.

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The parties dispute whether Fraccaroli discloses a “user sending status,” but the record evidence shows that it discloses “a user sending status” under all proposed constructions of the term. *See* Compl. Br. at 537-38; Resps. Br. at 228-30; RX-0462C (Heppe DWS) Q/A 91-93. For example, Granstam discloses that the “buddy-structure 30 has public data 31, *e.g.*, available for all subscribers,” and that “Public Data may include Nick Names, MSISDN, Icons (Sound/Text/Picture), Location, Location Status, Phone Status, Email Address, ICQ No., greetings, personal data such as name, work, education, references, sex, interest, age, length, weight, hair/eye colour, address, work details, home page, community, user-defined-items, for example part of visiting card, etc.” RX-0044 (Granstam) at col. 10, Ins. 7-18. Granstam also discloses that users have the ability to disable or alter portions of their public data. RX-0044 (Granstam) at col. 9, Ins.39-44; col. 10, Ins. 25-27. Dr. Heppe testified that a person of ordinary skill in the art would understand that a user’s ability to control whether a mobile station can send data, such as its “Location,” to other mobile stations by disabling or altering portions of public data constitutes “a user sending status” under all proposed constructions. *See* RX-0462C (Heppe DWS) Q/A 91.

BHM and Mr. Zatkovich contend that Granstam’s disclosure of disabling or altering portions of public data does not constitute “a user sending status” because disabling or altering portions of public data configures a database distant from the user or device, but does not prohibit the device itself from sending data. *See* Compl. Br. at 538; CX-1400C (Zatkovich RWS) Q/A 119. Nevertheless, even under Mr. Zatkovich’s construction of “user sending status,” Granstam’s description of IMSI [mobile device] “attach” and “detach” discloses “a user sending status.” *See, e.g.*, RX-0044 (Granstam) at col. 8, Ins. 10-15; RX-0462C (Heppe DWS) Q/A 93. IMSI “attach” is a procedure that connects a mobile device to a network when the

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device is powered on, and IMSI “detach” disconnects a mobile device from a network when the device is powered off. *See, e.g.*, RX-0044 (Granstam) at col. 8, lns. 10-15; RX-0462C (Heppes DWS) Q/A 93. It was well known in the art that IMSI “attach” and “detach” must be transmitted from the mobile device. *See, e.g.*, RX-0044 (Granstam) at col. 8, lns. 10-15; RX-0462C (Heppes DWS) Q/A 93. Therefore, these procedures represent a “sending status” as claimed in the ’593 patent. *See* RX-0462C (Heppes DWS) Q/A 93. Similarly, Granstam’s disclosure of registration, the process by which the cell location of mobile stations is made known to the network, also discloses “a user sending status” under Mr. Zatkovich’s interpretation of the claim term. RX-0044 (Granstam) at col. 6, lns. 46-55; RX-0462C (Heppes DWS) Q/A 93.

- iv. **“a central unit having a processor coupled to a memory, the central unit capable of communicating with the first mobile communications device over a first wireless communications link and with the second mobile communications device over a second wireless communications link, the memory storing a first user profile including information associated with a user of the first mobile communications device and a second user profile including information associated with a user of the second mobile communications device, wherein the central unit receives the user sending status from the second mobile communications device and the information defining the locations of the first and the second mobile communications devices and wherein the processor receives the first and the second user profiles to match information of the users and, if there is a match and depending upon the user sending status, effects the transmission to the first mobile communications device of locating information based upon the information defining the locations of the first and the second mobile communications devices”**

The record evidence shows that Granstam discloses all the elements of this claim limitation. *See, e.g.*, RX-0462C (Heppes DWS) Q/A 89-100. The only element in this limitation that the parties dispute Granstam discloses is “locating information” that is “based upon the

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information defining the locations of the first and second mobile communications devices.” *See* Compl. Br. at 538-39; Resps. Br. at 230-32. However, the evidence shows clearly and convincingly that Granstam discloses “locating information,” which was construed above to mean “information that enables a user to contact or find another device or location.” *See* RX-0462C (Heppe DWS) Q/A 96. The evidence also shows that Granstam discloses “locating information” as construed by and BHM and the Staff to mean “information usable to arrive at a location.” *Id.*

Specifically, Granstam discloses a first mobile device, referred to as a “seeking mobile station,” that receives and displays “position information” corresponding to a second mobile device, referred to as a “sought mobile station.” RX-0044 (Granstam) at col. 2, ln. 64 – col. 3, ln. 3. According to Granstam, “the position information includes the absolute location of a sought mobile station in relation to a seeking mobile station.” *Id.* at col. 3, lns. 3-5. Granstam further discloses:

The processing may be adaptive, i.e. the data is processed and categorized in levels, e.g. divided into “COUNTRY”, “CITY”, “PLACE” and so on. If [subscriber] A is in Sweden, for example, and [subscriber] B in France, the location is given as “FRANCE”, if [subscriber] A is in France, then location is indicated, e.g. by “PARIS”, and if [subscriber] A is in Paris the location may be indicated by a street name, e.g. “Place de la Concorde” or the like.

Id. at col. 8, lns. 52-59.

Granstam also discloses that “[a]lthough the ‘location’ is the preferred representation form, it is clear that a more precise position of the sought subscriber can be provided.” RX-0044 (Granstam) at col. 8, lns. 59-61. For instance, “[i]t is also possible to provide graphical presentations through maps (Map on Web), WAP data, browser suited data, etc.” *Id.* at col. 8,

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Ins. 63-65. Figures 5 and 6 of Granstam illustrate a mobile device displaying locating information.

The locating information disclosed in Granstam is “based upon the information defining the locations of the first and the second mobile communications devices,” a term that the parties agree should be construed to mean “derived from the information defining the locations of both mobile communications devices.” *See* RX-0462C (Heppe DWS) Q/A 97. For example, Granstam discloses providing position information to a first mobile device for locating a second mobile device, wherein the precision of the position information is based upon the separation distance between the first and second mobile devices. *Id.*

BHM and Mr. Zatkovich contend that “[t]his disclosure does not meet ‘locating information’ under any party’s construction because merely providing a country/city/place insufficient [sic] to arrive at a location or ‘contact or find’ another device.” *See* Compl. Br. at 538-39; CX-1400C (Zatkovich RWS) Q/A 122. However, Mr. Zatkovich testified that an address would be locating information, and Granstam teaches “that a more precise position of the sought subscriber can be provided.” Zatkovich Tr. 1607-1608; RX-0044 (Granstam) at col. 8, Ins. 59-61. Mr. Zatkovich also testified that a map with one user’s location “relative to” another’s location is locating information, while Granstam teaches that the “location of a sought mobile station [is displayed] in relation to a seeking mobile station.” Zatkovich Tr. 1608; RX-0044 (Granstam) at col. 3, Ins. 3-5.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 7 of the ’593 patent is invalid as anticipated by Granstam.

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b. Claim 18

i. “The system according to any of claims 1, 4 or 7”

As set forth above, Granstam satisfies all limitations of claim 7 of the '593 patent.

ii. “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information”

Granstam discloses the additional limitations of dependent claim 18, “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information.” *See* RX-0462C (Heppe DWS) Q/A 109. For example, Granstam discloses transmitting “[p]ublic data [that] may include Nick Names, MSISDN, Icons (Sound/Text/Picture), Location, Location Status, Phone Status, Email Address, ICQ No., greetings, personal data such as name, work, education, references, sex, interest, age, length, weight, hair/eye colour, address, work details, home page, community, user-defined-items, for example part of visiting card, etc.” *Id.*; RX-0044 (Granstam) at col. 10, lns. 9-24. This public data includes examples of additional information that is transmitted with the locating information. RX-0462C (Heppe DWS) Q/A 109.

Therefore, it is determined that Respondents have shown by clear and convincing evidence that asserted claim 18 of the '593 patent is invalid as anticipated by Granstam.

5. Obviousness

Respondents argue that, to the extent it is determined that Degnbol, Fraccaroli, or Granstam do not anticipate the asserted claims of the '593 patent, these references render obvious the asserted claims, either alone or in combination with other references. *See* Resps. Br. at 233-39. Although it was determined above that Degnbol, Fraccaroli, and Granstam each

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anticipate asserted claims 7 and 18 of the '593 patent, the record evidence regarding obviousness of these claims is summarized below for completeness.

a. **Claim 7 – Fraccaroli Alone or in Combination with Degnbol and/or Granstam (Claim 7)**

Respondents adduced evidence to show that, in the event it is found that Fraccaroli does not disclose the limitation requiring “if there is a match and depending upon the user sending status, effects the transmission to the first mobile communications device of locating information based upon the information defining the locations of the first and the second mobile communications devices,” it would have been obvious to a person of ordinary skill in the art at the time of the alleged invention to combine the teachings of Fraccaroli with the teachings of Degnbol and/or Granstam to disclose this limitation. RX-0462C (Heppe DWS) Q/A 132. As discussed above, Degnbol (RX-0093) and Granstam (RX-0044) each disclose this limitation under all proposed constructions of the term.

Dr. Heppe testified that a person of ordinary skill in the art at the time of the alleged invention would have been motivated to combine the teachings of Fraccaroli with the teachings of Degnbol and/or Granstam because each of these references teaches location sharing, location tracking, and location-based systems that operate on the same or similar wireless communications networks. RX-0462C (Heppe DWS) Q/A 133. Thus, one of ordinary skill in the art at the time of the alleged invention would have found it obvious to combine their teachings with respect to providing location-based information. *Id.*

Mr. Zatkovich disagrees with Dr. Heppe’s opinion. *See* CX-1400C (Zatkovich RWS) Q/A 132 (stating that “neither Degnbol or Granstam discloses this limitation” and that it would not have been obvious to combine because “Fraccaroli teaches away from providing personal

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information in the event of a match”). Although Fraccaroli does describe one embodiment that provides anonymity to the user, there are other embodiments that do not do so. *See* RX-0462C (Heppe DWS) Q/A 131. For example, Fraccaroli discloses the “prompt could also include . . . information in the profile of the user of the other mobile station.” RX-0042 (Fraccaroli) at col. 10, lns. 56-63. Fraccaroli further discloses that the “profile contains personal information such as age, race, marital status, gender, sexual orientation, religion, height, weight, color of eyes and/or hair, smoking habits, education, interests, etc.” *Id.* at col. 1, lns. 30-33). Therefore, Fraccaroli does teach providing personal information in the event of a match.

b. Claim 7 – Granstam Alone or in Combination with Degnbol

Respondents adduced evidence to show that, in the event it is found that Granstam does not disclose “a user sending status,” it would have been obvious to a person of ordinary skill in the art at the time of the alleged invention to combine the teachings of Granstam with the teachings of Degnbol to disclose this limitation. *See* RX-0462C (Heppe DWS) Q/A 94. As discussed above, Degnbol (RX-0093) discloses this limitation under all proposed constructions.

Dr. Heppe testified that both Granstam and Degnbol use cellular telephony wireless technology and both discuss wireless locating techniques, such as GPS. RX-0462C (Heppe DWS) Q/A 95. Dr. Heppe further testified that Granstam and Degnbol also contemplate similar methods for locating users of mobile devices, and for transmitting data through a cellular network between users via a central unit. *See id.* Dr. Heppe testified that, like Granstam, Degnbol (RX-0093) describes at column 19, lines 7-12 using a central unit to compare profile data of nearby users to determine whether locating information should be transmitted to the users. RX-0462C (Heppe DWS) Q/A 95.

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c. **Claim 18 – Degnbol, Granstam, and/or Fraccaroli in Combination with Ludwig**

Respondents adduced evidence to show that, in the event it were found that Degnbol, Granstam, or Fraccaroli did not disclose the claim 18 limitation “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information,” it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to combine the teachings of Degnbol, Granstam, or Fraccaroli with the Ludwig reference to render claim 18 obvious. *See* Resps. Br. at 236-39.

The Ludwig reference is PCT application PCT/EP1998/004343 (WO1999/004582 A1), and is titled “Location dependent www service in digital cellular communication networks.” RX-0092 (Ludwig). Ludwig was filed on July 13, 1998, with a priority date of July 15, 1997, and was published internationally on January 28, 1999. *Id.* Both of these dates are earlier than BHM’s earliest claimed priority date, and Ludwig is therefore prior art to the ’593 patent under at least 35 U.S.C. § 102(a).

Respondents’ expert Dr. Heppe testified that Ludwig discloses the additional limitation of claim 18 that provides “wherein the central unit transmits additional information to at least one of the first and second mobile communications devices with the locating information.” *See* RX-0462C (Heppe DWS) Q/A 70-75. Ludwig teaches providing location-based information services, such as weather forecasts, and traffic reports. *See* RX-0462C (Heppe DWS) Q/A 73. For example, Ludwig discloses the use of mobile communications devices in communication with a remote server to obtain location-based services. RX-0462C (Heppe DWS) Q/A 73; RX-0092 (Ludwig) at col. 8, Ins. 5-16. By connecting the server to the Internet, “location specific web sites may offer weather forecast or route traffic information depending on the

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geographic location of the mobile station.” *Id.* Thus, Ludwig teaches methods helpful for providing “route information or information of traffic jams.” *Id.*; *see also* RX-0092 (Ludwig) at col. 21, lns. 12-25).

Dr. Heppe testified that it would have been obvious to a person of ordinary skill in the art at the time of the alleged ’593 invention to combine the teachings of Degnbol with the teachings of Ludwig. RX-0462C (Heppe DWS) Q/A 74. Ludwig describes location monitoring as part of its teachings. *Id.* Thus, Ludwig and Degnbol both relate to location-based services, and Degnbol and Ludwig both employ similar mobile communications network technologies, such as VLR, HLR, MSC, and BSS, to implement such services. *Id.* In particular, both these references teach how to provide a mobile device user with location-dependent information. *Id.* Ludwig, for example, teaches providing location-based information services, such as weather forecasts and traffic reports. *Id.* Dr. Heppe testified that, given that much of this information would have been of interest to the mobile device users of Degnbol, it would have been obvious to a person having ordinary skill in the art to combine Degnbol with Ludwig. *Id.*

Dr. Heppe testified that, like Degnbol, Ludwig uses mobile communications devices in communication with a remote server to obtain location-based services. RX-0462C (Heppe DWS) Q/A 74. For example, Ludwig discloses “[t]he mobile device is adapted to request a location dependent WWW service from the WWW server on the basis of location specific data.” *Id.* By connecting the server to the Internet, “location specific web sites may offer weather forecast or route traffic information depending on the geographic location of the mobile station.” *Id.* Degnbol similarly teaches “generating a message when the distance between the first and the second unit is within a predetermined range,” and that this message may contain position information of another user in the form of a map, graphics, image, etc. *Id.*; *see also* RX-0093

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(Degnbol) at col. 4, lns. 8-9; col. 5, lns. 17-18. Thus, according to Dr. Heppe, the delivery of additional information, and the obtaining of information over the Internet, such as disclosed in Ludwig, were well known to those of skill in the art at the time of the alleged invention, and could have been added to Degnbol without undue experimentation and with predictable results. RX-0462C (Heppe DWS) Q/A 75. Dr. Heppe testified that it would have been obvious to combine the teachings of Degnbol with the teachings of Ludwig to provide additional information available from the Internet. *Id.* at Q/A 74.

Dr. Heppe further testified that it would have been obvious to a person of ordinary skill in the art at the time of the alleged '593 invention to combine the teachings of Fraccaroli with the teachings of Ludwig to meet the additional limitations of claim 18. *See* RX-0462C (Heppe DWS) Q/A 147. According to Dr. Heppe, both Fraccaroli and Ludwig describe location monitoring, both relate to location-based services and information, and both employ similar mobile communications network technologies. *Id.* at Q/A 147. Ludwig, for example, teaches providing location-based information services, such as weather forecasts and traffic reports. *Id.* Given that mobile device users would be interested in such information, Dr. Heppe testified that it would have been obvious to a person having ordinary skill in the art to combine Fraccaroli with Ludwig to provide routing, mapping, or other location-based information available from the Internet. *Id.* at Q/A 147.

Dr. Heppe also testified it would have been obvious to a person of ordinary skill in the art at the time of the alleged invention to combine the teachings of Granstam with the teachings of Ludwig for similar reasons. *See* RX-0462C (Heppe DWS) Q/A 112. According to Dr. Heppe, both Granstam and Ludwig describe location monitoring, both relate to location-based services and information, and both employ similar mobile communications network technologies. *Id.*

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Dr. Heppe testified that it therefore would have been obvious to a person having ordinary skill in the art to combine the teachings of Granstam with the teachings of Ludwig to provide routing, mapping, or other location-based information available from the Internet. *Id.*

d. Secondary Considerations

With respect to secondary considerations of nonobviousness, BHM argues the following:

BHM has achieved secondary indicia of nonobviousness, including commercial success due to its license with []. Respondents as well have sold millions of mobile devices due to the claimed features which as stated herein are used on the order of “millions” of times per day. See CX-1400C.067-68 (Zatkovich RWS), at Q161.

Compl. Br. at 525.

BHM relies solely on the alleged commercial success achieved by devices manufactured by Respondents and BHM’s licensee, [], as secondary evidence of non-obviousness. *See* Compl. Br. at 525. BHM’s expert Mr. Zatkovich, however, has not identified a nexus between any alleged commercial success and the specific inventions claimed in the ’593 patent. Not only has it not been shown that the [] products practice the ’593 patent, but it has also not been shown that the commercial success of the [] products is attributable to their incorporation of the accused software functionalities. Absent such a showing, the evidence regarding commercial success deserves little weight. Further, to the extent that Mr. Zatkovich or BHM contends that [] licensed products have been successful due to the technology purportedly claimed in the ’593 patent, Mr. Zatkovich again did not identify a nexus between any [] product that BHM contends has experienced success and the technology purportedly claimed in the ’593 patent. *See id.*; CX-1400C (Zatkovich RWS) Q/A 161.

Accordingly, it is determined that the evidence of secondary considerations adduced by BHM would fail to overcome a finding that the asserted claims of the ’593 patent are obvious.

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6. Indefiniteness

Respondents contend that asserted claims 7 and 18 of the '593 patent are invalid for indefiniteness under 35 U.S.C. § 112. Resps. Br. at 240-44. Specifically, Respondents argue that each of the asserted claims “attempts to improperly cover a system and a method for using that system within a single claim.” *Id.* at 240. It is argued that “it would be unclear [to a person of ordinary skill in the art] whether infringement occurs when one creates a system that is capable of performing the method, or whether infringement occurs only when a user actually uses the system in the manner claimed.” *Id.* at 240-41 (citing RX-0462C (Heppe DWS) Q/A 18). It is further argued that “each of these claims is ambiguous to one of ordinary skill in the art and indefinite as a matter of law under section 112, paragraph 2.” *Id.* at 241.

Respondents argue that, even though BHM was on notice of their indefiniteness claim, BHM did not brief this issue in its prehearing brief and thereby waived the issue. *See* Resps. Br. at 241 (citing Ground Rule 7.c.). Respondents therefore argue that “the ALJ should find the asserted claims indefinite under 35 U.S.C. 112(2) for improperly attempting to cover a system and a method for using that system within a single claim.” *Id.*

Even though BHM may have waived its arguments regarding the validity of the asserted '592 claims over section 112, paragraph 2, a finding of indefiniteness nevertheless should not be made if the claims, “viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, No. 13-369, at 11 (June 2, 2014).

In support of its argument, Respondents offer the testimony of their expert Dr. Heppe:

Q18. Are the asserted claims system claims?

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A18. The preamble of each asserted claim sets forth the alleged invention as a system, but the remainder of the language is ambiguous as to whether alleged invention is a system or a method. For example, the “central unit” limitations of claims 1, 4, and 7 each contain elements that one of skill in the art would interpret as steps of a method. Therefore, one of ordinary skill in the art would not understand the scope of the claims. For example, it would be unclear whether infringement occurs when one creates a system that is capable of performing the method, or whether infringement occurs when a user actually uses the system in the manner claimed.

RX-0462C (Heppe DWS) Q/A 18.

Respondents did not provide additional evidence regarding whether or not a person of ordinary skill in the art would consider claim 7 of the '593 patent indefinite, and BHM did not offer testimony or other evidence in rebuttal to Respondents' allegations. *See* Resps. Br. at 241-44; Compl. Br. at 219-24. Inasmuch the analysis of whether a claim is indefinite under 35 U.S.C. § 112, ¶ 2 requires a determination of what a person of ordinary skill in the art would think upon reading the claim language, it is determined that Respondents have not prevailed in their indefiniteness allegations. The record evidence does not demonstrate, clearly and convincingly, that a person of ordinary skill in the art would consider claims 7 and 18 of the '593 patent indefinite.

VIII. Domestic Industry – Economic Prong

A. General Principles of Law

A violation of section 337(a)(1)(B), (C), (D), or (E) can be found “only if an industry in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established.” 19 U.S.C.

§ 1337(a)(2). Section 337(a) further provides:

(3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—

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- (A) significant investment in plant and equipment;
- (B) significant employment of labor or capital; or
- (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3).

These statutory requirements consist of an economic prong (which requires certain activities)⁸³ and a technical prong (which requires that these activities relate to the intellectual property being protected). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 13 (May 16, 2008) ("*Stringed Musical Instruments*"). The burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied. *Certain Multimedia Display and Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. at 5 (July 22, 2011) ("*Navigation Devices*").

With respect to the economic prong, and whether or not section 337(a)(3)(A) or (B) is satisfied, the Commission has held that "whether a complainant has established that its investment and/or employment activities are significant with respect to the articles protected by the intellectual property right concerned is not evaluated according to any rigid mathematical

⁸³ The Commission practice is usually to assess the facts relating to the economic prong at the time that the complaint was filed. See *Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same*, Inv. No. 337-TA-560, Comm'n Op. at 39 n.17 (Apr. 14, 2010) ("We note that only activities that occurred before the filing of a complaint with the Commission are relevant to whether a domestic industry exists or is in the process of being established under sections 337(a)(2)-(3).") (citing *Bally/Midway Mfg. Co. v. U.S. Int'l Trade Comm'n*, 714 F.2d 1117, 1121 (Fed. Cir. 1983)). In some cases, however, the Commission will consider later developments in the alleged industry, such as "when a significant and unusual development occurred after the complaint has been filed." See *Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op., at 5-6 (Jan. 20, 2012) ("[I]n appropriate situations based on the specific facts and circumstances of an investigation, the Commission may consider activities and investments beyond the filing of the complaint.").

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formula.” *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm’n Op. at 27 (Feb. 17, 2011) (“*Printing and Imaging Devices*”) (citing *Certain Male Prophylactic Devices*, Inv. No. 337 TA-546, Comm’n Op. at 39 (Aug. 1, 2007)). Rather, the Commission examines “the facts in each investigation, the article of commerce, and the realities of the marketplace.” *Id.* “The determination takes into account the nature of the investment and/or employment activities, ‘the industry in question, and the complainant’s relative size.’” *Id.* (citing *Stringed Musical Instruments* at 26).

With respect to section 337(a)(3)(C), whether an investment in domestic industry is “substantial” is a fact-dependent inquiry for which the complainant bears the burden of proof. *Stringed Musical Instruments* at 14. There is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic industry under the “substantial investment” requirement of this section. *Id.* at 25. There is no need to define or quantify an industry in absolute mathematical terms. *Id.* at 26. Rather, “the requirement for showing the existence of a domestic industry will depend on the industry in question, and the complainant’s relative size.” *Id.* at 25-26.

B. Economic Prong Analysis

The record evidence demonstrates that BHM fails to satisfy the economic prong of the domestic industry requirement for several reasons. First, BHM has failed to link or allocate the alleged domestic investments of BHM’s licensee [] to the products BHM identified in its Identification of Models of Domestic Industry Products submitted on August 30, 2013 (“DI Products”), or to the software applications on the DI Products.⁸⁴ Although the specific products

⁸⁴ Pursuant to Order No. 44, BHM may not rely on alleged domestic industry products that are absent from the August 30 Identification. BHM’s motion to reconsider this Order was denied.

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that BHM has sought to rely on to establish a domestic industry have changed several times throughout this investigation, the recited [] investments have remained the same because they are linked to broad product categories rather than to specific products. While a precise accounting is not required to satisfy the economic prong of the domestic industry requirement, BHM's recitation of the number of facilities and employees involved with product lines that include, but are not limited to the DI Products, does not form an adequate basis for a determination that a domestic industry exists. Second, BHM has failed to establish that the cited [] activities are of the sort deemed relevant to the economic prong analysis. Third, BHM's statement of [] investments includes investments made by [], which was not a licensed entity at the time of the investments. Inasmuch as BHM failed to apportion properly considered investments to the products BHM is permitted to rely on for domestic industry purposes, BHM cannot prove that there has been a significant or substantial domestic investment in articles protected by each Asserted Patent and, accordingly, has failed to satisfy the economic prong.

1. Allocation of [] Domestic Activities

To support its economic prong claims, BHM relies primarily on the testimony of [], a paralegal for [], a Senior Manager for [] (collectively, the "[] witnesses"), and of its CEO Hugh Svendsen. The testimony of [], and Mr. Svendsen did not, however, recite investments made by [] in specific models of [] products. Rather, the [] witnesses broadly provided investments for general product lines, including televisions,

Accordingly, BHM may rely only on [] domestic investments in the DI Products in attempting to establish the existence of a domestic industry.

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tablets, Blu-ray players/recorders, and mobile phones,⁸⁵ and Mr. Svendsen did not provide details regarding [] domestic investments. *See, e.g.*, CX-1069C ([] DWS) Q/A 4, 13; CX-1070C ([] DWS), Q/A 14, CX-0013C (Svendsen DWS). BHM has not linked or apportioned the investments provided by the [] witnesses to the DI Products that BHM is permitted to rely on pursuant to Order No. 44. Therefore, the evidence regarding [] investments does not support a finding that the economic prong is satisfied

a. Investments in Research and Development

The [] witnesses stated that both [] invest in facilities and labor allegedly relating to research and development of [] televisions, tablets, Blu-ray players/recorders, and mobile phones. *See, e.g.*, CX-1069C ([] DWS) Q/A 11. There is no testimony explaining what such “research and development” activities entailed. Moreover, neither BHM nor the [] witnesses broke down the cited investments as between the different product lines or allocated the cited investments to the DI Products.

[] provided the acreage and square footage of [] headquarters in []. CX-1069C ([] DWS) Q/A 8. Similarly, [] stated that [] has facilities in []. CX-1070 ([] DWS) Q/A 14. There is no evidence, however, of [] and [] financial investments in these facilities and no evidence linking or allocating any specific portion or percentage of the facilities to the DI Products. Additionally, the [] witnesses testified that all of the products they addressed in their testimony are manufactured abroad. [] Tr. 277; [] Tr. 292.

⁸⁵ While BHM identified home theater systems as practicing certain of the asserted patents, [], and Mr. Svendsen did not provide investment evidence or expenditure evidence relating to home theater systems.

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[] also discussed [] employment of labor. CX-1069C ([] DWS) Q/A 12-13. Although [] recited the total number of people employed in the United States by [], for a majority of these employees there is no evidence of what their job duties entail or whether they perform any work related to the DI Products. [] did testify that approximately [] engineers work “among several [] business units which support various aspects of the technology incorporated in [] televisions, tablets, Blu-ray players/recorders, and mobile phones, which practice the patents at issue.” CX-1069C ([] DWS) Q/A 13. Nevertheless, [] did not testify that each of these [] engineers actually perform work on the DI products or, if they do, what percentage of their time had been spent working on the DI Products. Moreover, [] does not elaborate on what products she believes “practice the patents at issue.” There is no indication that she limited such products to the DI Products that BHM is permitted to rely on under Order No. 44, particularly in light of the fact that Order No. 44 issued on February 14, 2014, after [] provided her direct witness statement. Inasmuch as the [] witnesses did not provide testimony or evidence related to salaries, BHM cited to a third party website for salary information.⁸⁶ See CX-1069C ([] DWS); CX-1070C ([] DWS); CX-0013C (Svendsen DWS) Q/A 72-73. BHM did not establish that this information was reliable or verifiable or that it reflects the actual salaries paid to the [] engineers. Thus, BHM failed to provide reliable evidence of [] monetary investment in the [] engineers, or any investment in labor as it relates to the DI Products.

[] also stated that “[t]here are a number of business units that contain groups of employees supporting business related to televisions, tablets, Blu-ray players/recorders, and

⁸⁶ As indicated on the face of the evidence, the salaries listed on www.glassdoor.com are posted anonymously and there is no way to verify these salaries are indeed accurate. CX-0086 (website printout).

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mobile phones.” CX-1069C ([] DWS) Q/A 15. No details, however, were provided regarding the functions and duties carried out by these groups (except for the [] group), how these groups support the DI Products, the number of employees in these groups who work with the DI Products, or the general amount of time, or percentage of effort, the groups dedicate to the DI Products. It cannot be assumed absent reliable evidentiary support that these groups are fully dedicated to the DI Products. For example, the group “[]” performs functions related to the [] laptops and desktops, which are not alleged to practice the Asserted Patents.

The data regarding employment of labor by [] recited by the [] witnesses suffer from the same shortcomings. [] stated that approximately [] employees have “some responsibilities related to research and development for [] tablets ([]) and [] mobile phones.” CX-1069C ([] DWS) Q/A 14. There is no evidence, however, of what these responsibilities are or what percentage of the [] employees’ time is dedicated to the DI Products. Similarly, [] stated that [] “has had engineers working at its facilities in [] developing and supporting [] Mobile telephones and tablets for the United States market including, in particular, the [

] product line.” CX-1070C ([] DWS) Q/A 14. [] did not elaborate on what such development and support activities entail, nor did he identify how many engineers were involved in such activities as they relate to the DI Products or how much of the engineers’ time is spent working with respect to these products. Moreover, neither [] nor [] limited their testimony to employment of labor related to the specific models of mobile phones and tablets that BHM is permitted to rely on for domestic industry purposes, which do not include all devices within the [] product line.

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As evident from the discussion above, BHM provided no basis on which to determine [] actual investment in plants or employment of labor related to research and development of the DI Products, or whether such investment and employment are significant or substantial.

b. Investments in Warranty, Service, and Repair

The [] witnesses also testified as to investments made by [] in facilities and labor allegedly relating to warranty, service, and repair of [] televisions, tablets, Blu-ray players/recorders, and mobile phones. *See, e.g.*, CX-1069C ([] DWS) Q/A 11. For example, [] stated that [] “provides a broad array of technical services for the repair and refurbishment of, and after-market customer support for” products covered by the Asserted Patents. CX-1069C ([] DWS) Q/A 11. However, [] did not provide details regarding what these services are or how many people are responsible for providing them. Moreover, as with research and development, no attempt was made to link or apportion [] investments related to warranty, service, and repair to the DI Products.

[] stated that [], which has [] employees in the United States, is responsible for supporting the []. CX-1069C ([] DWS) Q/A 16. According to [], employees of the [] “[a]mong other things . . . train members of the [] to repair televisions, tablets, Blu-ray players/recorders, and mobile phones.”⁸⁷ CX-1069C ([] DWS) Q/A 17. [] further stated that there are [] full-time [] employees “who provide technical repair assistance to the [] concerning televisions, tablets, Blu-ray

⁸⁷ [] testimony regarding the [] does not establish the existence of a domestic industry. Neither BHM nor the [] witnesses provided testimony or evidence regarding the identity of these [], the functions they perform, the products they work on, or the investments they made in the DI Products.

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players/recorders, and mobile phones.”⁸⁸ *Id.* There is no evidence regarding [] monetary investments in these employees. Moreover, it is clear from [] testimony that these employees have responsibilities that are unrelated to the DI Products. Yet, neither BHM nor the [] witnesses allocated the employees’ time between the DI Products and products not alleged to practice the Asserted Patents or products that BHM is precluded from relying upon by Order No. 44. [] investments in its [] therefore are not a reliable indicator of whether [] domestic investments in the DI Products are significant or substantial.

[] also testified regarding the [], where the service and repair of tablets, Blu-ray players/recorders, and mobile phones is administered. CX-1069C ([] DWS) Q/A 18. [] stated that there are [] people in the “[] group at the [] facility supporting the repair and refurbishment of” these products. *Id.* It is unclear whether these [] people overlap with the [] people who work in the []

[] group. Moreover, neither BHM nor the [] witnesses provided information regarding the salaries for these people or what percentage of their time, if any, is spent working on the DI Products. As to the [] facility itself, [] stated that the facility is 70,000 square feet. CX-1069C ([] DWS) Q/A 18. There was no allocation of any specific portion or percentage of the [] facility to the DI Products. While [] provided the number of repairs and/or refurbishments completed daily for tablets, Blu-ray players/records, and mobile phones, she did not provide testimony that would enable a determination of the percentage of repairs and refurbishments performed on the DI Products. *See, e.g.*, CX-1069C ([] DWS) Q/A 18.

⁸⁸ These [] employees may be a subset of the [] employees referenced in the previous sentence, inasmuch as they are a part of the [].

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[] also discussed [], which holds parts to be used to complete repairs and refurbishments of [] tablets, Blu-rays/recorders, and mobile phones. CX-1069C ([] DWS) Q/A 19. [] did not provide the size of the [] or otherwise state what portion of the [] facility is made up of the []. Moreover, [] stated that some parts are purchased and used by [] third-party servicers. *Id.* To the extent that the [] is used to sell parts to third parties, it is not clear that these investments should qualify as investments in warranty, service and repair.

[] next testified regarding the []. [] testified that [] employees of the [] are located in the United States, with [] individuals employed as part of the []. CX-1069C ([] DWS) Q/A 19. There was no testimony or other evidence provided regarding the functions or duties carried out by the remaining [] employees. Even with respect to the [] employees, [] did not provide any details about the actual work carried out by the individuals or the percentage of their time that is dedicated to the DI Products. [] also discussed the [], and stated that the [] “assists with operation of finished goods warehouses as well as product return centers.” CX-1069C ([] DWS) Q/A 20. [] did not elaborate on what “assist[ing] with operation of finished goods warehouses” entails or provide details regarding the percentage of employee time that is spent on the DI Products.

[] also addressed the [] and []. CX-1069C ([] DWS) Q/A 21. In particular, [] testified as to the total number of employees in these organizations who handle telephone customer support. [] offers customer support for products not covered by the Asserted Patents, inasmuch as []

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[] testified that only roughly a quarter of the total “Q&As” within [] customer support knowledgebase relate to [] televisions, tablets, and Blu-ray player/recorders. CX-1069C ([] DWS) Q/A 21. There was no information provided indicating the percentage of calls fielded by the [] or [] Customer Call Center that relate to the DI Products, or to the product lines of which the DI Products are a part. Further, [] stated that service and repair related telephone calls from customers regarding certain [] tablets and mobile phones are managed by [] and handled “outside of the U.S.” CX-1069C ([] DWS) Q/A 21. There is no indication of what management [] provides in the United States, the investments therein, or the employment of labor it entails.

[] also stated that service and support for [] televisions, tablets, Blu-ray players/recorders, and mobile phones can be obtained at any of the [] retail locations in the United States. CX-1069C ([] DWS) Q/A 23. [] provided no information on these locations, such as their size, [] investment therein, the number of employees, or the importance of the DI Products to such locations, which sell and support products unrelated to the DI products. [] also did not provide any data regarding the amount of repair and servicing functions that occur at such retail locations as opposed to, for example, sales of [] products.

c. Investments in Marketing

[] discussed [] activities in the United States related to marketing of televisions, tablets, Blu-ray players/recorders, and mobile phones. CX-1069C ([] DWS) Q/A 24. [] stated that approximately [] employees work in the []

[] group, which conducted [] events in the United States last year. CX-1069C ([] DWS) Q/A 24. [] provided no additional information or understanding of what these

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employees do. Moreover, [] testified that the group is responsible for displaying products other than the DI Products, but provided no data regarding the portion of [] investment in marketing that can be allocated to the DI Products. CX-1069C ([] DWS) Q/A 24.

2. Investments Made by []

[] testified as to certain facts relating to [], including where it was previously headquartered, the activities that took place there, and the number of people it employed. *See, e.g.*, CX-1070C ([] DWS) Q/A 11. None of the [] investments recited by [], however, is relevant to the economic prong analysis here, inasmuch as [] was not a party to the license agreement between Concert, [], and []. CX-1386C (License Agreement); CX-0013C (Svendson DWS) Q/A 50. Thus, prior to [] acquisition by [], [] had no license to the Asserted Patents, no “articles protected by the [asserted] patents,” and, therefore, no domestic investments in such articles, as required by the governing statute. 19 U.S.C. §1337(a)(3); *see also, e.g., Certain Electronic Imaging Devices*, Inv. No. 337-TA-726, Order No. 18, 2011 WL 826919, at *7 (Feb. 7 2011) (basing a determination of whether the economic prong is satisfied on only those investments made by a licensee after the relevant license agreement was executed). The fact that [] was ultimately acquired by [] does not retroactively make its previously investments applicable to the domestic industry analysis in this investigation. This is particularly true insofar as BHM did not identify the early models of [] mobile devices as DI Products. Further, [] investments suffer from the same deficiencies as the [] and [] investments discussed above. Specifically, BHM and the [] witnesses provided no detail

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regarding the specific activities performed or investments made by [] and further made no attempt to allocate such investments to the DI Products.

Accordingly, the evidence regarding investments by [] do not support a finding that the economic prong is satisfied.

3. [] Sales

[] and [] both testified concerning [] product sales. CX-1070C ([] DWS) Q/A 17; CX-1069C ([] DWS) Q/A 25-28. Evidence of product sales in the United States are not in and of themselves sufficient to establish the economic prong of the domestic industry requirement. Moreover, the sales figures provided by the [] witnesses are not limited to the DI Products and, therefore, do not support a finding that the economic prong is satisfied.

4. The Significance and Substantiality of [] Investments

As detailed in the sections above, BHM did not adduce evidence of the nature of [] domestic investments and the extent to which these investments relate to the DI Products, if at all. BHM provided general figures relating to the size of several [] facilities and the number of employees at [] and [] who may have performed work in connection with product lines that include, but are not limited to, the DI Products. A precise apportionment or accounting may not be necessary before finding that the economic prong of the domestic industry requirement is satisfied. Nevertheless, BHM neither allocated, nor provided a reliable method by which to allocate, these investments to the DI Products. Without evidence of [] relevant domestic investments in the DI Products that BHM is permitted to rely on for domestic industry purposes, there is no basis on which it can be determined whether or not such investments rise to the level of significance or substantiality required by 19 U.S.C. § 1337(a)(3).

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Moreover, a complainant cannot rely on unlicensed domestic activity. *See Spring Assemblies and Components Thereof, and Methods for Their Manufacture*, Inv. No. 337-TA-88, Comm'n Action and Order, USITC Pub. No. 1172, 0081 WL 667408, at *22 (Aug. 1981). BHM did not adduce evidence to compare the significance of unlicensed domestic activities related to the DI Products with the licensed domestic activities. Yet, BHM relies in large part on the very same third-party applications it accuses of infringement to establish a domestic industry. Specifically, BHM's domestic industry allegations rely on the DI Products being used in conjunction with specific software applications, the majority of which are designed and distributed by third parties, and one of which no longer exists. BHM also relies on an unlicensed third party that made significant contributions to engineering and developing the [] phone, *i.e.*, []. *See* CX-1070C ([] DWS) Q/A 11. Instead of providing a basis from which to compare the value added to the DI Products by licensed domestic activity to the value added by unlicensed domestic activity, BHM mingled the unlicensed activities and the alleged domestic industry activities.

Although section 337(a)(3)(C) may be satisfied through investments in the exploitation of articles protected by the asserted patents rather than exploitation of the patents themselves, if a complainant cannot show that its exploitation activities are related to features covered by the asserted patents, such investments will carry less weight in the domestic industry analysis. *See, e.g., Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm'n Op., 2008 WL 2952724, at *25 (May 2008). BHM has not shown that [] investments are related to features covered by the asserted patents, these investments therefore carry little weight in the economic prong analysis.

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In addition, the relationship between [] and BHM favors giving little to no weight to [] licensed activities. []

[]. *See, e.g.*, CX-1386C (License Agreement) at § 3(b). []

[], as well as any patents acquired by BHM during the so-called “capture period.” *Id.* at § 2(a) and (b). Thus, with [] financing, BHM may have acquired patents for the purpose of generating revenue. The Commission has previously found that domestic activities directed to the generation of revenue were entitled to less weight than those that were directed towards production. *Certain Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm’n Op. (Corrected Version), 2011 WL 3813121 (July 22, 2011) (“Although our statute requires us to consider all ‘licensing’ activities, we give Pioneer’s revenue-driven licensing activities less weight.”).

For the reasons discussed above, BHM did not meet its burden of proving satisfaction of the economic prong of the domestic industry requirement based on the domestic investments of its licensee []. BHM did not provide evidence demonstrating the amount of [] investment that can properly be allocated to the DI Products, the amount of [] investment that can properly be attributable to each individual asserted patent, or the significance or substantiality of such investment.

IX. Conclusions of Law

1. The Commission has subject matter, personal, and *in rem* jurisdiction in this investigation.

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2. The accused Samsung, LG, and Toshiba products have been imported into the United States.
3. Samsung's accused products do not infringe asserted claims 1, 5, 23, 30, 34, 37, and 45 of U.S. Patent No. 8,214,873; asserted claims 9 and 14 of U.S. Patent No. 8,045,952; asserted claims 1, 11, and 13 of U.S. Patent No. 8,050,652; or asserted claims 7 and 18 of U.S. Patent No. 6,618,593.
4. LG's accused products do not infringe asserted claims 1, 5, 23, 30, 34, 37, and 45 of U.S. Patent No. 8,214,873; asserted claims 9 and 14 of U.S. Patent No. 8,045,952; asserted claims 1, 11, and 13 of U.S. Patent No. 8,050,652; or asserted claims 7 and 18 of U.S. Patent No. 6,618,593.
5. Toshiba's accused products do not infringe asserted claims 1, 5, 23, 30, 34, 37, and 45 of U.S. Patent No. 8,214,873; asserted claims 9 and 14 of U.S. Patent No. 8,045,952; asserted claims 1, 11, and 13 of U.S. Patent No. 8,050,652; or asserted claims 7 and 18 of U.S. Patent No. 6,618,593.
6. The domestic industry requirement has not been satisfied with respect to any asserted patent.
7. It has been shown by clear and convincing evidence that the asserted claims of U.S. Patent No. 8,214,873 are invalid under 35 U.S.C. § 112, ¶ 1.
8. It has been shown by clear and convincing evidence that the asserted claims of U.S. Patent No. 6,618,593 are invalid in view of the prior art.
9. It has not been shown by clear and convincing evidence that the asserted claims of U.S. Patent No. 8,045,952 or U.S. Patent No. 8,050,652 are invalid.

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X. Initial Determination on Violation

Accordingly, it is the initial determination of the undersigned that no violation of section 337 (19 U.S.C. § 1337) has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain microprocessors, components thereof, and products containing same, with respect to asserted claims 1, 5, 23, 30, 34, 37, and 45 of U.S. Patent No. 8,214,873; asserted claims 9 and 14 of U.S. Patent No. 8,045,952; asserted claims 1, 11, and 13 of U.S. Patent No. 8,050,652; or asserted claims 7 and 18 of U.S. Patent No. 6,618,593.

Further, this initial determination, together with the record of the hearing in this investigation consisting of (1) the transcript of the hearing, with appropriate corrections as may hereafter be ordered, and (2) the exhibits received into evidence in this investigation, is hereby certified to the Commission.

In accordance with 19 C.F.R. § 210.93(c), all material found to be confidential by the undersigned under 19 C.F.R. § 210.5 is to be given *in camera* treatment.

The Secretary shall serve a public version of this initial determination upon all parties of record and the confidential version upon counsel who are signatories to the Protective Order, as amended, issued in this investigation.

Pursuant to 19 C.F.R. § 210.42(h), this initial determination shall become the determination of the Commission unless a party files a petition for review pursuant to § 210.43(a) or the Commission, pursuant to § 210.44, orders on its own motion a review of the initial determination or certain issues herein.

XI. Order

To expedite service of the public version, each party is hereby ordered to file with the Commission Secretary no later than July 21, 2014, a copy of this initial determination with brackets to show any portion considered by the party (or its suppliers of information) to be confidential, accompanied by a list indicating each page on which such a bracket is to be found. At least one copy of such a filing shall be served upon the office of the undersigned, and the brackets shall be marked in red. If a party (and its suppliers of information) considers nothing in the initial determination to be confidential, and thus makes no request that any portion be redacted from the public version, then a statement to that effect shall be filed.



David P. Shaw
Administrative Law Judge

Issued: July 7, 2014

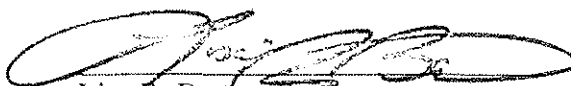
CERTAIN DIGITAL MEDIA DEVICES, INCLUDING TELEVISIONS, BLU-RAY DISC PLAYERS, HOME THEATER SYSTEMS, TABLETS AND MOBILE PHONES, COMPONENTS THEREOF AND ASSOCIATED SOFTWARE

INV. NO. 337-TA-882

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **FINAL INITIAL DETERMINATION (PUBLIC VERSION)** has been served by hand upon the Commission Investigative Attorney, **Monisha Deka, Esq.**, and the following parties as indicated, on

AUG 07 2014



Lisa R. Barton, Secretary
U.S. International Trade Commission
500 E Street SW, Room 112A
Washington, DC 20436

FOR COMPLAINANT BLACK HILLS MEDIA, LLC:	
Howard Wisnia, Esq. MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C. 3580 Carmel Mountain Road, Suite 300 San Diego, CA 92130	<input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____
FOR RESPONDENTS SAMSUNG ELECTRONICS CO. LTD., SAMSUNG ELECTRONICS AMERICA, INC. AND SAMSUNG TELECOMMUNICATIONS AMERICA, LLC:	
Alexander D. Chinoy, Esq. COVINGTON & BURLING LLP 1201 Pennsylvania Avenue, NW Washington, DC 20004	<input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____

CERTAIN DIGITAL MEDIA DEVICES, INCLUDING TELEVISIONS, BLU-RAY DISC PLAYERS, HOME THEATER SYSTEMS, TABLETS AND MOBILE PHONES, COMPONENTS THEREOF AND ASSOCIATED SOFTWARE

INV. NO. 337-TA-882

FOR RESPONDENTS LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC. AND LG ELECTRONICS MOBILECOMM U.S.A., INC.:	
Elizabeth A. Niemeyer, Esq. FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP 901 New York Avenue, NW Washington, DC 20001	<input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____
FOR RESPONDENTS PANASONIC CORPORATION AND PANASONIC CORPORATION OF NORTH AMERICA:	
Daniel R. Foster, Esq. McDERMOTT WILL & EMERY LLP 4 Park Plaza, Suite 1700 Irvine, CA 92614	<input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____
FOR RESPONDENTS TOSHIBA CORPORATION AND TOSHIBA AMERICA INFORMATION SYSTEMS, INC.:	
Paul F. Brinkman, Esq. QUINN EMANUEL URQUHART & SULLIVAN, LLP 777 Sixth Street NW, 11th Floor Washington, DC 20001	<input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____
FOR INTERVENOR GOOGLE INC.:	
Stefani E. Shanberg, Esq. WILSON SONSINI GOODRICH & ROSATI PC One Market Plaza Spear Tower, Suite 3300 San Francisco, CA 94105	<input checked="" type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Express Delivery <input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Other: _____